THE AMERICAN
School Board Journal

A PERIODICAL OF SCHOOL ADMINISTRATION

Devoted to the Interests of School Boards, Superintendents,
School-Business Officials, and School Architects

VOLUME 93
JULY—DECEMBER, 1936

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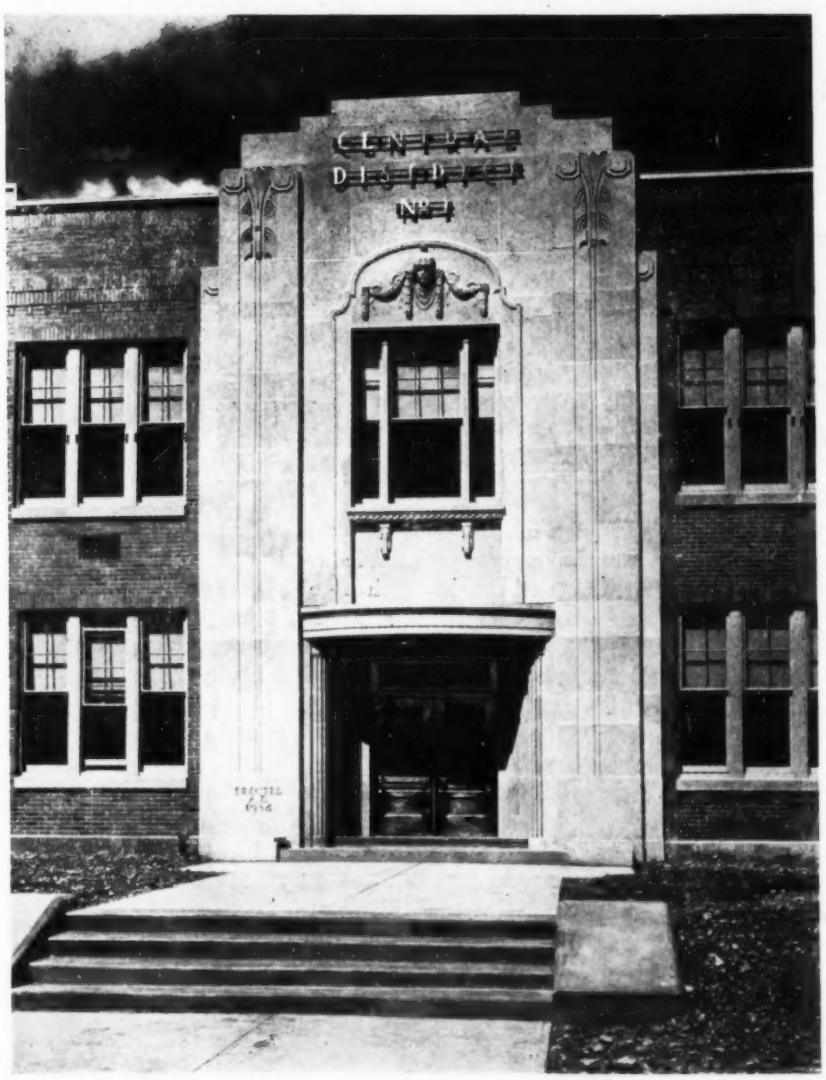
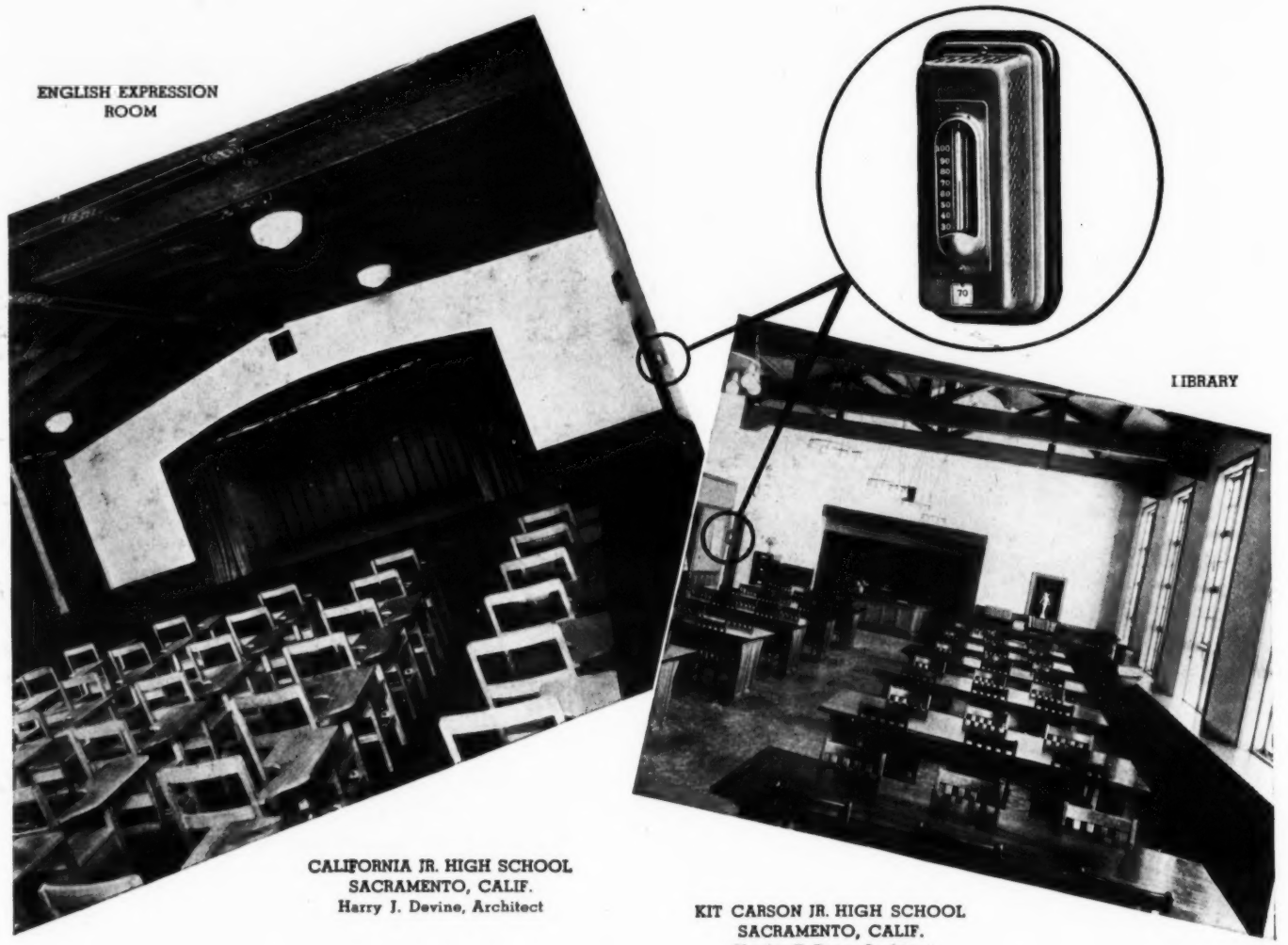


In this Issue:

STATE EDUCATIONAL BOARDS
SMITTLE

THE BRUCE PUBLISHING CO.
MILWAUKEE . . . CHICAGO . . . NEW YORK



ENGLISH EXPRESSION ROOM

CALIFORNIA JR. HIGH SCHOOL
SACRAMENTO, CALIF.
Harry J. Devine, Architect

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KIT CARSON JR. HIGH SCHOOL
SACRAMENTO, CALIF.
Charles F. Dean, Architect

Even in Mild Climates . . .

Automatic Temperature Regulation is Recognized!

In California, where the number of "degree days" in the heating season is only one-third to one-half of that found in New York and Chicago, there are hundreds of schools and countless buildings of other types equipped with *Johnson* systems. While the money-saving in fuel may not be as great as in the northern states, the Comfort, Convenience and Healthfulness of accurate, dependable temperature control is recognized and appreciated.

Johnson thermostats are visible on the walls of these interesting rooms in two new and modern California Schools. A total of 72 *Johnson* room thermostats control *Johnson* valves on 93 radiators and valves and dampers in 13 unit-type ventilators in the two buildings . . . Ventilating systems for auditoriums are also *Johnson-controlled*.

From the tip of Maine to southern California, from the Pacific Northwest to Florida, and from coast to coast in Canada, boards of education and other building owners of every type have availed themselves of the services of the *Johnson* organization. Whatever the temperature or humidity control problem — in heating, cooling, ventilating, air conditioning, or industrial processing — there is *Johnson* equipment, tried and tested, ready for application by a thoroughly trained staff of engineers and mechanics.

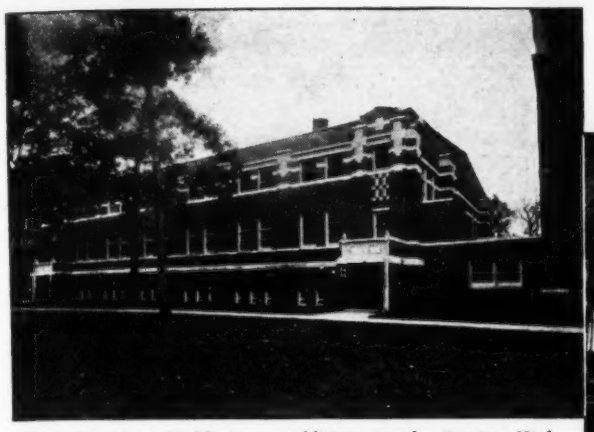
JOHNSON

AUTOMATIC HEAT & HUMIDITY CONTROL

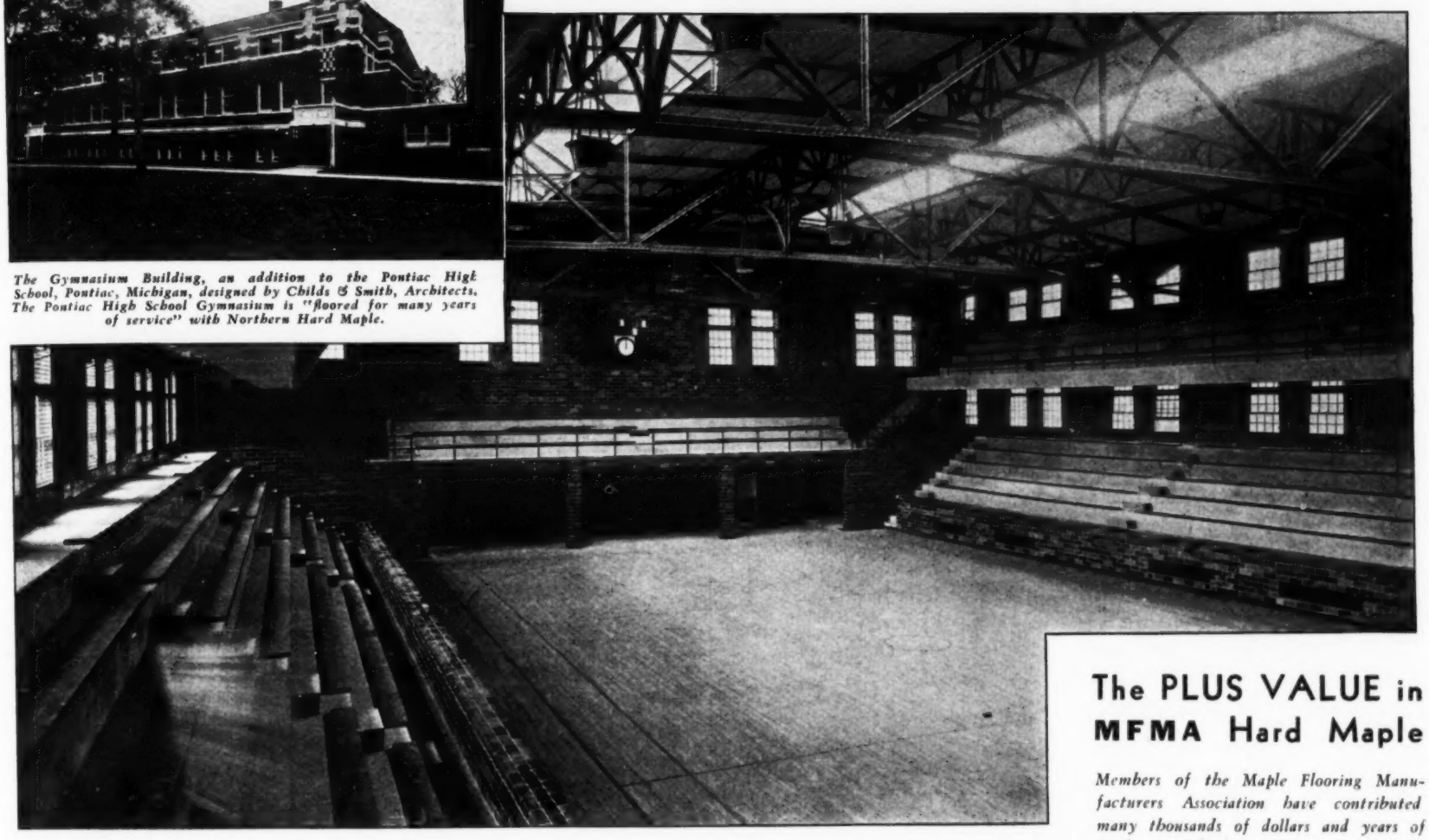
JOHNSON SERVICE COMPANY . . . MILWAUKEE, WISCONSIN . . . OFFICES IN ALL PRINCIPAL CITIES
A SINGLE NATION-WIDE ORGANIZATION DEVOTED TO ONE LINE OF BUSINESS FOR MORE THAN FIFTY YEARS

"We specify only the very best quality as furnished by Association Mills"

Says FRANK A. CHILDS, Childs & Smith
Chicago Architects



The Gymnasium Building, an addition to the Pontiac High School, Pontiac, Michigan, designed by Childs & Smith, Architects. The Pontiac High School Gymnasium is "floored for many years of service" with Northern Hard Maple.



"In the furnishing of Maple Flooring," says this prominent architect, "we find it is quite necessary to be particular about quality and high standards. . . . We recommend, therefore, that it is most advisable to specify only the very best quality as is furnished by the Maple Flooring Manufacturers Association members."

Childs & Smith know from years of experience the important differences between MFMA Northern Hard Maple and other Maple flooring. The MFMA trade-mark on Maple Flooring, *certifies* that it meets Association standards of quality and millwork and *guarantees* that it is all genuine Hard Maple of the grade indicated.

In using Northern Hard Maple Flooring in strips or blocks, you are entitled to a full measure of its remarkable qualities—tough-fibred, tight-grained, lastingly smooth surface, no slivering, splintering or ridges—no lodging crevices for dirt, firm anchorage for desks—easy cleaning—warm, dry resilience that reduces fatigue, favors student health and efficiency.

MFMA grading and supervision assures you of maximum service, sanitation, convenience, good appearance and economy in classroom, shop, gymnasium and assembly hall floors. Assure complete satisfaction by including the trade mark "MFMA" when you specify Hard Maple Flooring.

Floor *with* Maple

* The letters **MFMA** on Maple, Beech or Birch Flooring signify that the flooring is standardized and guaranteed by the Maple Flooring Manufacturers Association, whose members must attain and maintain the highest standards of manufacture and adhere to manufacturing and grading rules which economically conserve these remarkable woods. This trade-mark is for your protection. Look for it on the flooring you use. **MFMA**

MFMA Approved

The PLUS VALUE in MFMA Hard Maple

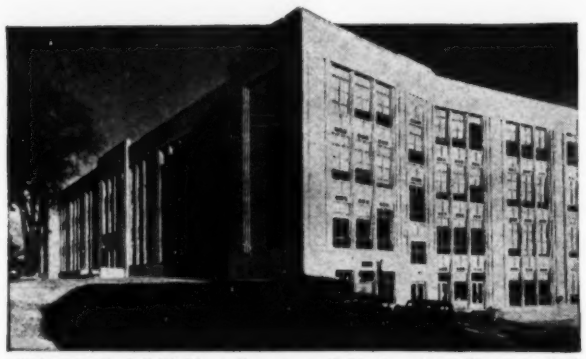
Members of the Maple Flooring Manufacturers Association have contributed many thousands of dollars and years of work to standardize and improve the manufacture and grade uniformity of Northern Maple, Beech, and Birch flooring. The following manufacturers offer the advantages of MFMA trade and grade marking and grade supervision. Specify **MFMA** *on the flooring you use.*

Beck, August C. Co.	Milwaukee, Wis.
Brown Dimension Co.	Manistique, Mich.
Bruce, E. L. Company (Mill at Reed City, Mich.)	Memphis, Tenn.
Connor Lumber & Land Co. (Sales Office, Marshfield, Wis.)	Laona, Wis.
Cummer-Diggins Co.	Cadillac, Mich.
Farrin Lumber Co., M. B.	Cincinnati, Ohio
Holt Hardwood Company	Oconto, Wis.
Kerry & Hanson Flooring Co.	Grayling, Mich.
Kneeland-Bigelow Co.	Bay City, Mich.
North Branch Flooring Co.	Chicago, Ill.
Northwestern Cooperage & Lumber Co.	Gladstone, Mich.
Oval Wood Dish Corp.	Tupper Lake, N. Y.
Robbins Flooring Co.	Rhinelander, Wis.
Sawyer Goodman Co.	Marinette, Wis.
Stephenson Company, I.	Wells, Mich.
Wells, J. W., Lumber Co.	Menominee, Mich.
Wisconsin Land & Lbr. Co.	Hermansville, Mich.
Yawkey-Bissell Lumber Co.	White Lake, Wis.

See our catalog data in Sweet's, Sec. 15/53. Our service and research department will gladly assist you with your flooring problems. Write us.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
1780 McCormick Building
Chicago, Illinois

ADD *Jamestown High* TO THE LIST



Architects: Beck & Tinkham, Jamestown, N. Y. Consulting Engineer: P. B. Fleming, Cleveland, Ohio. Heating Contractors: Chatfield & Sharp, Inc., Jamestown, N. Y.

Jamestown High School, Jamestown, N.Y.... 2300 students capacity... another one of the many new schools in which Sturtevant DeLuxe Unit Ventilators have been installed.

Cabinets of modern design are made of furniture steel... richly finished in Duco. The trim is lustrous stainless steel. The equipment throughout, with exception of controls, is of Sturtevant manufacture... assuring undivided responsibility.

School officials, architects and engineers have been quick to recognize the outstanding combination of sound engineering and eye-appeal found in these new Sturtevant Unit Ventilators. As a result, our shops are humming day and night...to fill the mounting list of orders.

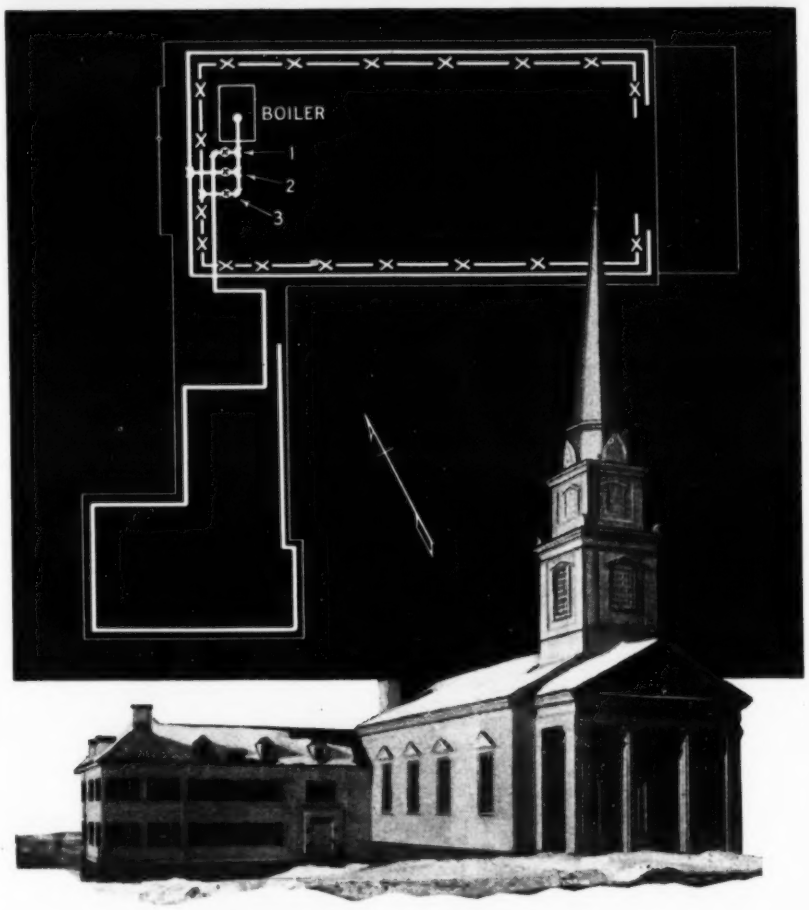
***Architects:* You will find our *complete* unit ventilator catalog in the 1936 Sweet's Catalog File, Section 26, Catalog 16.**

B. F. Sturtevant Co., Hyde Park, Boston, Mass.
Branches in 40 principal cities
B. F. Sturtevant Co. of Canada—Galt, Toronto, Montreal

THE NEW UNIT VENTILATOR

by Sturtevant

REG. U.S. PAT. OFF.



CHRIST CHURCH
of Dartmouth College
AVOIDS FUEL WASTE AND ASSURES COMFORT WITH

HOFFMAN ☆ TALLMADGE *Zoned* CONTROLLED HEAT

More steam is wasted in both large and small buildings through overheating than from any other cause. Zoning of the heating system with adequate control of the steam supply to each zone is therefore recognized by modern engineering as essential to economical operation.

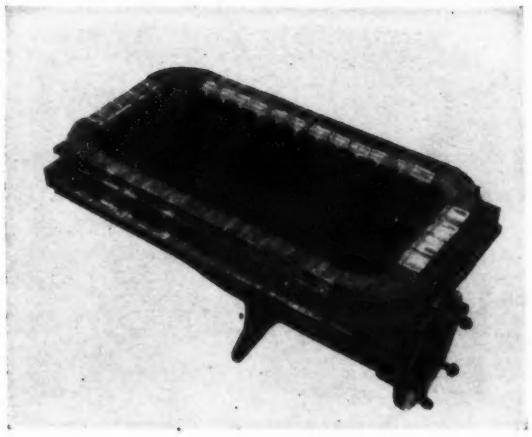
Hoffman-Tallmadge Zoned Controlled Heat offers a simple means of properly controlling the heat in any kind or size of building. As illustrated above by the Christ Church installation, the entire heating system is divided into as many zones as demanded by exposure to wind and sunshine and by type of occupancy. This zoning method plus the Hoffman-Tallmadge steam regulating devices provide full compensation for hourly, daily and seasonal changes in heating requirements.

By proper steam control, zones exposed to cold winds can be given ample heat, while zones on a sunny or sheltered side are supplied with a reduced amount of steam. Likewise steam can be regulated to suit different types or hours of occupancy. Thus uniform, comfortable temperatures are maintained with neither waste nor under-heating.

The equipment required by Hoffman-Tallmadge Zoned Controlled Heat is amazingly simple in both installation and operation. Fuel savings effected by this system are so sensational that your investigation will be well worth while. For full information write to the Hoffman Specialty Co., Dept. AB-7, Waterbury, Conn., makers of Venting Valves, Supply Valves, Traps and Hoffman-Economy Pumps.

The Stoker That Ushered In New Standards of Heating Economy

Stokers are replacing hand-firing very rapidly. Savings are so great that the investment soon pays substantial dividends. Stoker sales as a whole, last year, were at their all-time peak—70 per cent ahead of the year before. But one stoker stood out from the crowd. *Sales of Whiting Stokers showed a gain of 400 per cent!* That's an important fact for any school board to consider. For this stoker represents more than half a century of manufacturing experience. For many years Whiting engineers have designed and installed the fuel-burning equipment of many of the nation's leading industries. No wonder the Whiting School Models are so efficient! Don't go through another winter without the economy of Whiting Stokers.



The Famous Dual-Draft Burner

Designed especially for high volatile coal. Non-clogging tuyeres prevent freezing of clinkers. Narrow burner insures thorough penetration of incoming fuel, preventing "black spots" and improper combustion in center of burner. Additional air is also provided to finish burning the fuel that spreads over the dead plates. A great step ahead in fuel economy.

STANDARD SCHOOL MODEL—Refractory Setting. Capacities: 90 to 500 lbs. of bituminous coal per hour. Refractory or dead-plate setting.

WHITING STOKER

Mail This "Save Fuel" Coupon Now

Whiting Stokers are made to fit practically any make or model of boiler or furnace. See how they can reduce your fuel expense, save janitor time and improve your heating. Mail coupon now, while your heating system is not in operation.

ALSO A COMPLETE RESIDENTIAL LINE

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Gentlemen: Please mail data describing WHITING STOKERS ☐ for school use ☐ for home use.

NAME .....

BY ..... TITLE .....

ADDRESS .....

CITY ..... STATE .....

If Custodians Were Choosers

THE first man to receive complaints about stuffy, smelly, overheated classrooms, "drafty seats," or noisy ventilating units is usually the school custodian. If *he* were to select the heating and ventilating units for your school he would certainly look for the unit that maintains a *uniform* temperature throughout the room, with air always *fresh* and *active*—yet without a trace of drafts.

He would also demand fuel savings and general operating economy; he would accept none but the *quietest* unit; and he would expect units that were good looking, easy to clean, not easily marred. It goes without saying, his units would be *fully automatic*, not dependent upon his memory for any part of their performance.

Nesbitt Syncretizers would meet all his requirements. Not only custodians, but school officials, teachers, and pupils have all been greatly pleased wherever Nesbitt units have been installed in a school.

The "difficult" subject of schoolroom heating and ventilating is made plain in "The Story of Syncretized Air." Get your free copy; write John J. Nesbitt, Inc., Holmesburg, Philadelphia, Pa.

NESBITT
Syncretized Air

PERPETUAL JUNE IN THE CLASSROOM

Nesbitt Syncretizers are sold by American Blower Corporation, Buckeye Blower Company, and John J. Nesbitt, Inc.

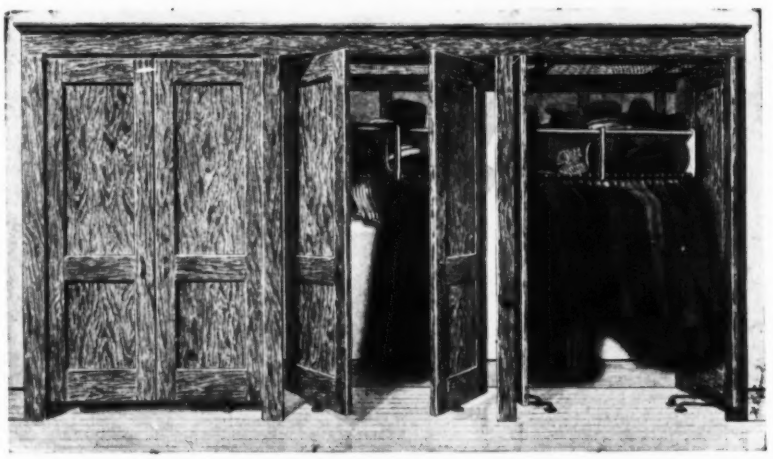
Pierce Rollers

Ideal For School Lawns, Playgrounds, Athletic Fields, Tennis Courts, Etc.

Schools and Colleges all over the Country are solving the problem of economically keeping their lawns, playgrounds, athletic fields, etc., in the best of condition, by using Pierce Rollers. The first cost is small and operating cost is negligible. Cost of fuel and oil for ten hours operation will not exceed $1.00. These Rollers keep the school properties in better condition than is possible by any other means and save their cost over and over.

«« *There are two popular models of Pierce Rollers for school use—the ¾ ton and the 1½-2-ton. Write for complete information.*

The Pierce Governor Company
Anderson, Indiana



EVANS
"Vanishing Door"
WARDROBE

●

Class J
equipped with either "Floor" type (as illustrated) or "Jamb" type hinges. This is Class D wardrobe if made with flush doors.

CLASSROOM WARDROBES
High in Quality — Low in Cost

This type occupies a recess flush with the wall. Plaster back and ends. No partitions, but with mullions between pairs of doors. Wire mesh ceiling. Blackboards if required.

The "Vanishing Door" hinges on which the doors are hung are made with double pivoted arms and swing the doors back into the wardrobe entirely out of the way. Simple—trouble-proof—and last as long as the building.

Wardrobes are furnished complete in the knock-down, with all woodwork cut to size, and only need to be nailed in place. The hinges are easier to put on than common butt hinges. The cost of installation is small.

We make many other types of school wardrobes, fully illustrated and described in Catalog "N." Send for your copy.

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WASHINGTON, INDIANA, U.S.A.

An Investment In Permanence And Modern Sanitation

CRANE DEFLECTO WALL URINAL
A vitreous china urinal. Receding back practically eliminates splashing over rim. Integral trap maintains constant water surface. Trap capacity adequate for small refuse such as cigarette butts.
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A vitreous china flushing rim washout urinal with integral extended shields. Siphon action. Integral strainer prevents refuse from entering trap-way.
CRANE PORCELAIN URINALS
Porcelain or vitreous china stalls with separate extended intermediate shields. Vitreous china automatic tank. Singly or in batteries up to six urinals with one tank.

THE sanitary equipment of the school should pay back, in service, no less than the sanitary equipment of any other institution.

Where the number of years of probable service is divided into the purchase price plus probable maintenance during that period, it will be found that Crane modern plumbing fixtures, valves and fittings provide the school with the finest sanitary equipment at a cost amazingly low.

The Crane Finance Plan enables you to modernize with no money down, three years to pay.

This economy of Crane equipment plus its advance sanitary design, operating efficiency and quality of materials and workmanship, warrant first consideration by school purchasing officials.

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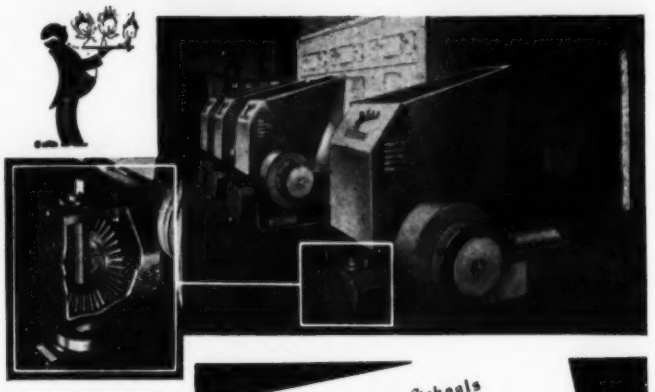
VALVES, FITTINGS, FABRICATED PIPE, PUMPS, HEATING AND PLUMBING MATERIAL

THE **AUTOMATIC BUTLER** COAL STOKER



Model 45 of the AUTOMATIC BUTLER Hits New High In Combustion Efficiency . . . With Exclusive New PULSATOR and Zoned Air Control System!

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HEATING COSTS HIT NEW LOW!

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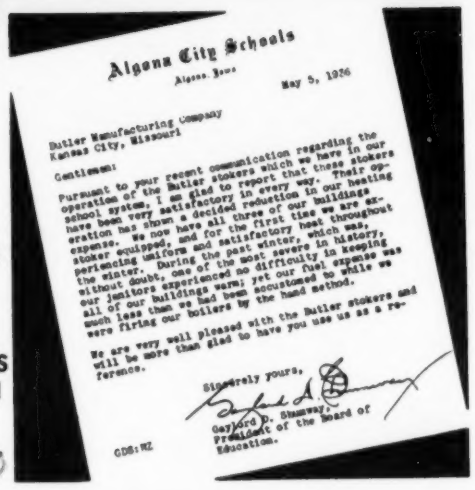
Write today for details and name of nearest dealer!



Algona City Schools

Algona, Iowa

May 5, 1936

Butler Manufacturing Company
Kansas City, Missouri

Gentlemen:

Pursuant to your recent communication regarding the operation of the Butler stokers which we have in our school system, I am glad to report that these stokers have been very satisfactory in every way. Their operation has shown a decided reduction in our heating expense. We now have all three of our buildings stoker equipped, and for the first time we are experiencing uniform and satisfactory heat throughout the winter. During the most severe in history, without doubt, one of the most severe in history, our janitors experienced no difficulty in keeping all of our buildings warm; yet our fuel expense was much less than we had been accustomed to while we were firing our boilers by the hand method.

We are very well pleased with the Butler stokers and will be more than glad to have you use us as a reference.

Sincerely yours,

Gaylord D. Shumway,
President of the Board of Education.

GDS:MZ

BUTLER MANUFACTURING COMPANY
1255 EASTERN AVE., KANSAS CITY, MO.

Want to eliminate the danger of scalding in your showers?

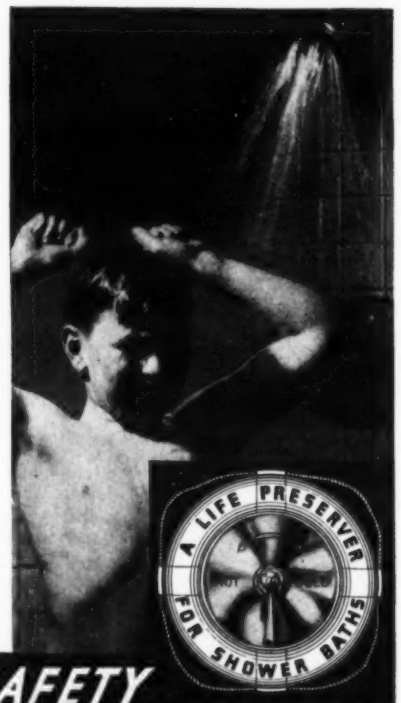
No More Unexpected "Shots" of Icy Cold or Scalding Hot Water!

No more slipping on a wet tile floor while trying to dodge a stream of hot or cold water.

When you use a shower regulated by a Powers automatic safety shower mixer the temperature remains right where you want it. You can really enjoy the thrill of a comfortable shower in absolute safety.

Why they're more Economical—no waste of hot or cold water while waiting for a shower at the right temperature. Powers mixers speed up bathing by eliminating these unnecessary delays.

Write for bulletin No. 258 describing our safety water mixing valves for all types of showers. The Powers Regulator Co., 2721 Greenview Ave., Chicago—Offices in 45 Cities; see your phone directory.



POWERS *SAFETY* SHOWER MIXERS

New . . . .

guidance in character training

THE BUILDER

By Florence Lansing

Distinctive for its sympathetic understanding of the problems of youth and for its emphasis on spiritual values, it will succeed in inspiring students with motives of true ambition, in filling their hearts with hope and their minds with knowledge, in teaching them to accept responsibility, and in directing them in the choice of career. Carefully organized, the material well selected and well presented, it will prove of genuine helpfulness in adjusting students to their life problems.

Ready in August

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By Fred G. Fox, Ph. D.

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96 cents

FIRST-YEAR ALGEBRA

By Kingsbury and Wallace

Combines teachability and student interest in a complete course for beginners.

$1.32

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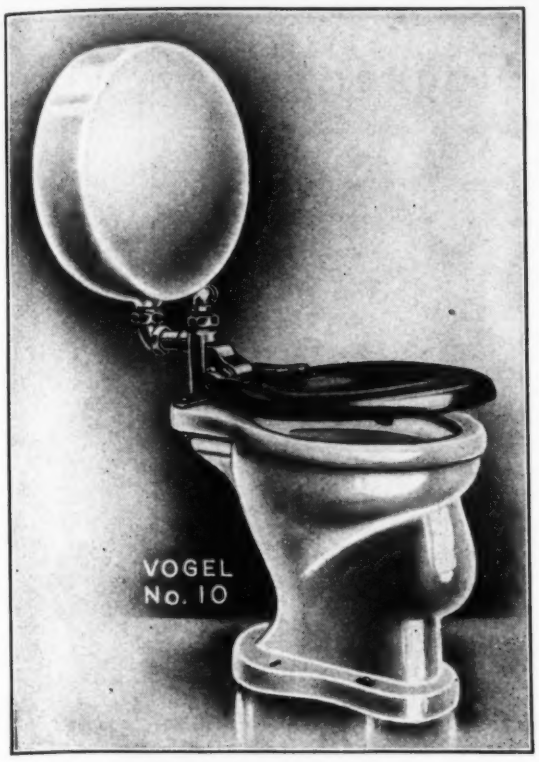


Vogel Number Ten—The durable, economical seat action closet, for installation in schools, institutions, comfort stations and public and semi-public places.

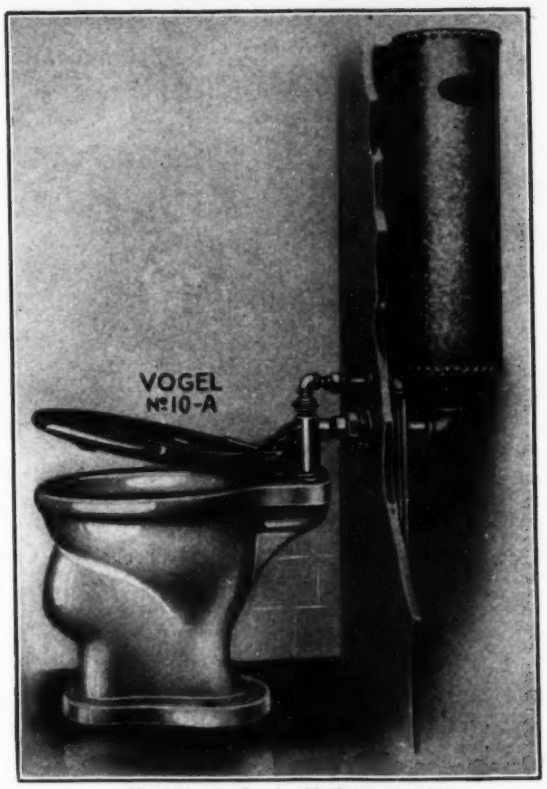
TO ELIMINATE EXPENSIVE REPAIRS AND REDUCE MAINTENANCE COSTS...INSTALL VOGEL NUMBER TEN AND TEN-A CLOSETS

THESE closets give years of service under all conditions and require only minor adjustments from time to time. They have features which make them ideal for school installation: there is no complicated mechanism to get out of order; a thorough, powerful flush is obtained on 4 gallons of water and children cannot forget to flush them.

Through the installation of VOGEL Number Ten and Ten-A Closets maintenance costs will reach a new low and efficient operation a new high.

JOSEPH A. VOGEL COMPANY
Wilmington, Del. St. Louis, Mo.

Sold by plumbers everywhere



Vogel Number Ten-A with the same valve and same features as the Number Ten. The only difference is that the Number Ten-A has the tank concealed behind wall.

VOGEL PATENTED *Products . . .*

MORE THAN YOUR MONEY BACK

CHAMBERLIN WEATHER STRIPS

"SINCE 1893-THE STANDARD"

Schools all over the country have proved by actual experience that Chamberlin Metal Weather Strips pay in dollars and cents. Protected buildings save from 20% to 40% of yearly fuel bills. That means more than your money back in a few years. Chamberlin savings and healthful comfort last the life of the building. Fully guaranteed. Write for complete details.

CHAMBERLIN METAL WEATHER STRIP CO., INC.
Brooklyn and LaBrosse Streets • Detroit, Mich.

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You can now buy a

WAYNE OUTDOOR STAND

AT THE

LOWEST PRICE

per seat

For which a steel stand has ever been sold

Write immediately for complete information.

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100 S. Broad Street WAYNE, PENNA.

Solves School Paint Problem

With Texolite Casein Paint decorate today, occupy tomorrow. One coat hides. Provides brilliant color, high light reflection, no glare, no objectionable paint odor, no fire hazard. A durable, economical paint, ideal for painting school interiors, new and old.

Samuel Hannaford & Sons, *Architects*

New-Type Casein Paint Gives Enduring Beauty at LOW COST

Texolite Paint

● Because we are leading manufacturers of interior finishes* it is fitting that we undertook the task of producing an ideal paint—the final note to accent the beauty of modern interiors.

Our special knowledge of the *relationship* of paint to the composition of the materials of interior finishes plus our exhaustive laboratory work and field tests permits us to say—*Texolite does more for the money than any other type of paint will do.*

For 12 years we have manufactured and experimented with casein paint. Texolite is the successful result of our experimentation. Texolite is an entirely *new principle paint.* Its advent marks a new conception of paint beauty and paint performance.

TEXOLITE HAS THESE ADVANTAGES

1. Hides in one coat . . . **2.** Dries in one hour . . . **3.** Goes 25 per cent farther . . . **4.** Leaves no brush marks . . . **5.** No paint odors . . . **6.** Does not yellow . . . **7.** One gallon makes one and one-half gallons of ready-to-use paint.

TRY TEXOLITE AT OUR EXPENSE

School officials everywhere are enthusiastic about Texolite advantages—its economy and light reflection value. Mail coupon today. We will send you complete information and a FULL QUART OF TEXOLITE absolutely FREE.

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300 West Adams Street, Chicago, Illinois AS-7

Please send me a sample full quart can of Texolite Paint, together with a sample of Texolite Deep Color and handy Color Guide.

*My Name*_____

*Address*_____

*City*_____ *Phone No.*_____

***INTERIOR FINISHES MANUFACTURED BY UNITED STATES GYPSUM COMPANY**

Red Top Plasters
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USG Finishing Limes
Sheetrock, the Fireproof Wallboard
Weatherwood Insulating Board
Weatherwood Hardboards
USG Fiber Wallboards
USG Acoustical Tiles

UNITED STATES GYPSUM COMPANY

Equip your locker system with TRADE YALE MARK LOCKER LOCKS

Known for their outstanding security and dependability, **YALE** Locker Locks are available in a wide range of types to meet all requirements—new installations and replacement.

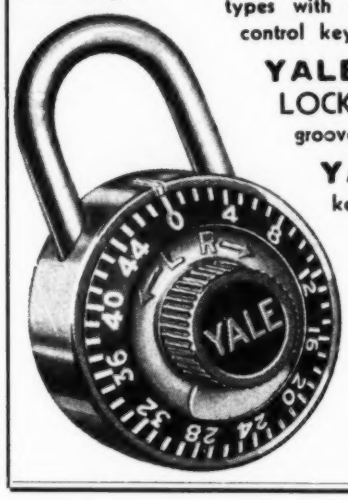
YALE COMBINATION PADLOCKS

YALE COMBINATION LOCKER LOCKS both above types with or without emergency control key.

YALE KEY LOCKER LOCKS Pin-tumbler, flat key or grooved key operation.

YALE CABINET LOCKS Master keyed in groups.

YALE Combination Padlock No. 579 (No. 589 with Emergency Control Key)



YALE Combination Locker Lock No. L3374 (with Emergency Control Key)

Write us your requirements, requesting samples and details.

THE YALE & TOWNE MFG. CO.
STAMFORD, CONN., U. S. A.

PROTECT the YOUNG LIVES and PROPERTY

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REMEMBER that school supplies and equipment could not possibly be on hand for the opening of school were it not for the service that these distributors are in position to render.

REMEMBER that it is necessary for the distributor to keep an experienced organization intact in order to render this service. Inexperienced help cannot function in handling goods of this type.

REMEMBER there are a thousand items that the distributor must be ready to furnish to meet all the needs of all the schools.

REMEMBER that while other organizations may be able to furnish some of the major items yet if they were called upon to furnish a complete order there would be chaos and confusion both in the company and in the school.

REMEMBER there may be special items called for by school districts which makes it necessary for the distributor to locate the sources of supply before shipment. This service may be rendered at a loss to the distributor but it is his conception of his duty to his customers.

REMEMBER that it is unsatisfactory to a Board of Education to have only a part of an order shipped. Using the school distributor as a source of supply is a protection against broken shipments.

REMEMBER that only a specialized organization such as the school distributor can serve all the needs of all the districts.

REMEMBER that the distributor company holds his organization intact to give immediate service on "fill-ins" during the month of September.

REMEMBER these specialized services when there is an inclination to give some of the major items of an order to some other organization than the school supply distributor.

REMEMBER that the school supply distributor is in a position to give the school district one hundred per cent service on all items even during the peak periods; he should be given consideration both in peak period and low period seasons when other organizations can render only a partial service or a service on a few volume items only.

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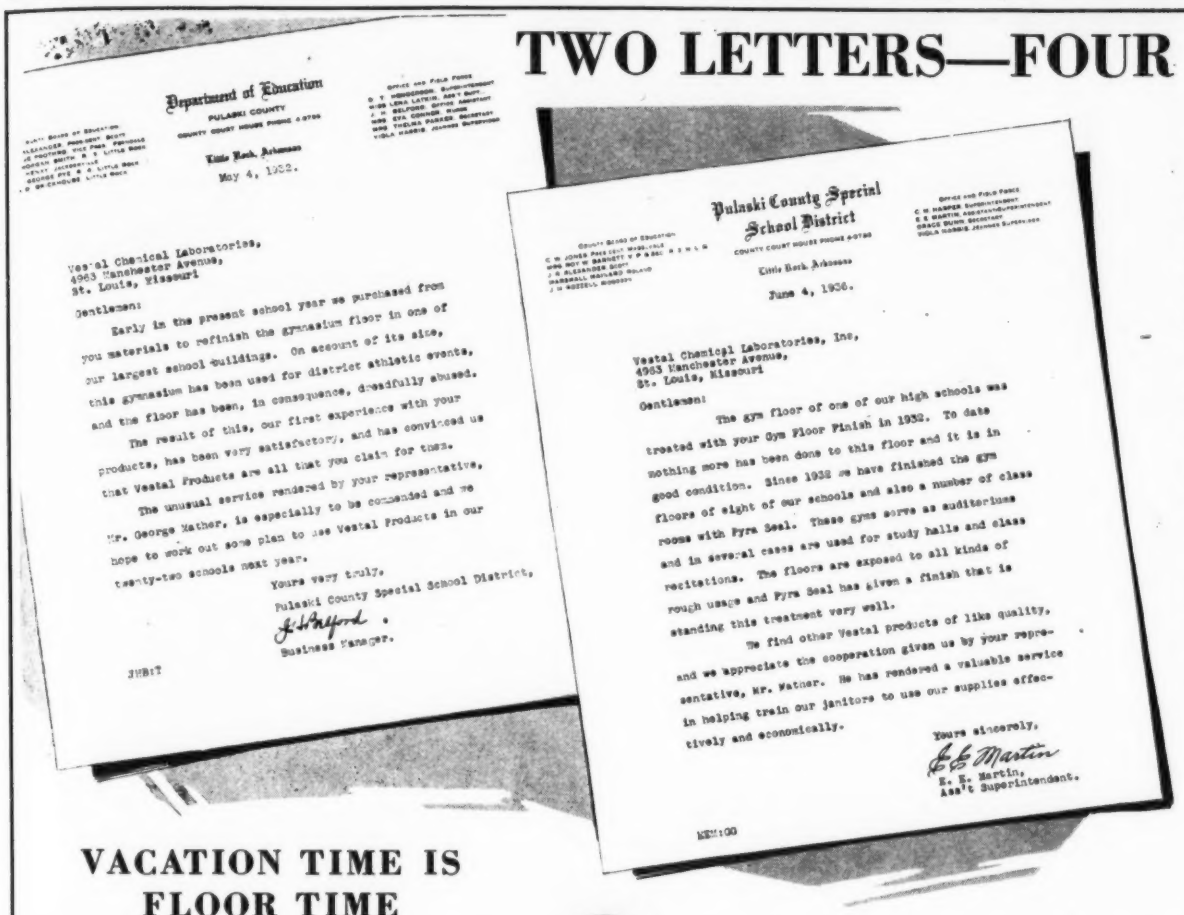

Department of Education
PULASKI COUNTY
COUNTY COURT HOUSE PHONE 4-0706
Little Rock, Arkansas
May 4, 1932.

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Gentlemen:

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Yours very truly,
Pulaski County Special School District,
J. Binford
Business Manager.

JHB:T

Pulaski County Special School District
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June 4, 1936.

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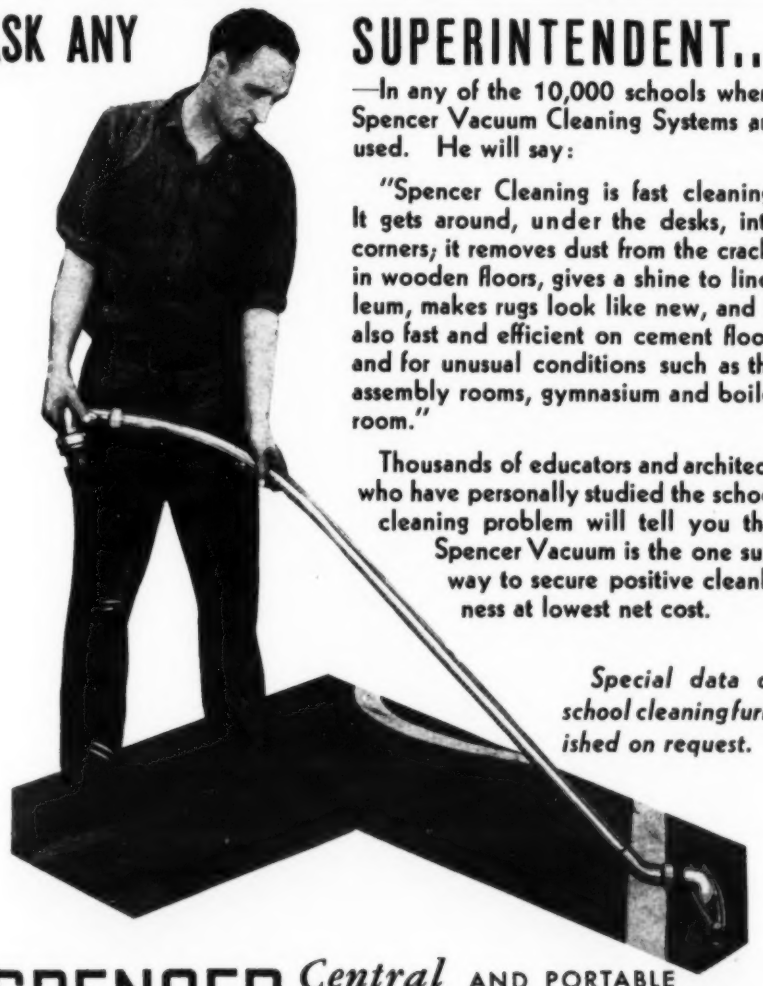

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SCHOOL SUPPLIES AND EQUIPMENT IN 1936

The 1936 policies of boards of education as applied to the purchase of school equipment, textbooks, and supplies have been marked by two unwise characteristics:

1. There has been excessive emphasis on price and a corresponding neglect of educational service.

2. There has been indecision and delay in the preparation of specifications and bid sheets, and in the actual placing of orders.

In a selection and purchase of equipment and supplies, experience has again and again demonstrated that mere cheapness is a form of extravagance. Quality and instructional utility must be the first considerations in the sense that every article purchased must measure up to the adequate standards of service and school use. The element of price is secondary, but it cannot be divorced from quality, particularly in public-school purchases. It is well to remember, too, that with modern competition the business man who seeks to win entirely on the basis of a low bid, frequently has little regard for business integrity, and is poorly equipped to back up the merchandise which he sells.

The delay and indecision which have characterized major school purchases during the first half of 1936 will certainly result in delays and disappointments in September unless school boards turn about-face and make immediate decisions and actual contracts. An enormous amount of business is still to be placed for buildings, erected under PWA auspices, and nearing completion for September occupancy. These purchases, combined with the fact that most schools have exhausted their stores of materials, because of the close purchasing policies during the past five years, all point to the exhaustion of various stocks carried by school manufacturers and dealers and publishers.

The experienced school buyers know full well that there are enormous advantages from the standpoint of price, quality, and ultimate satisfaction in placing summer orders as early in July as possible. *For 1936 prompt action is particularly indicated.*

THE EDITOR

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Editorial Material—Manuscripts and photographs bearing on school administration, superintendence, school architecture, and related topics are solicited, and will be paid for upon publication. Contributions should be mailed to Milwaukee direct, and should be accompanied by stamps for return, if unavailable. Open letters to the editor must in all cases contain the name and address of the writer, not necessarily for publication, but as evidence of good faith.

The contents of this issue are listed in the *Education Index*, Member, Audit Bureau of Circulation and Associated Business Papers.

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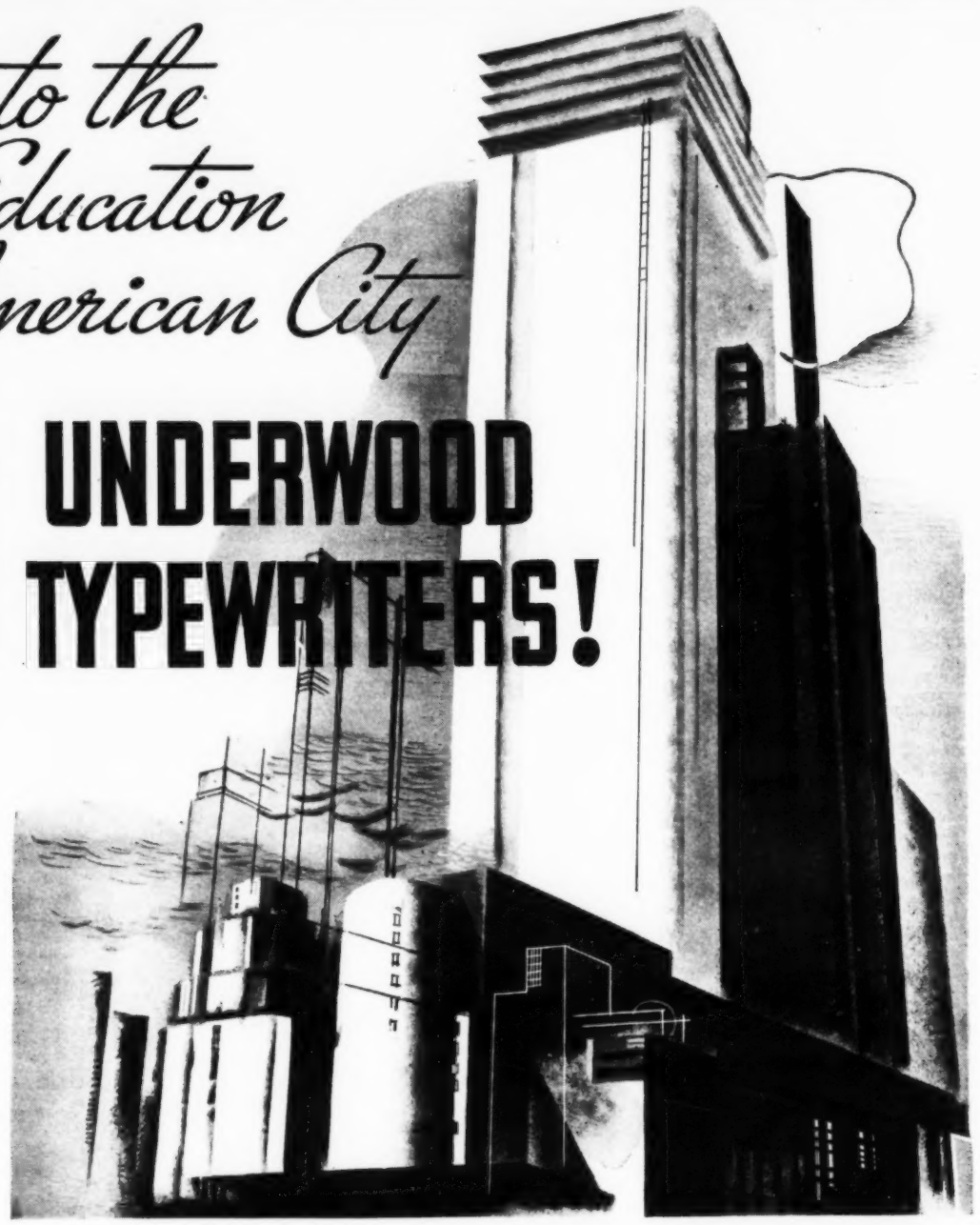

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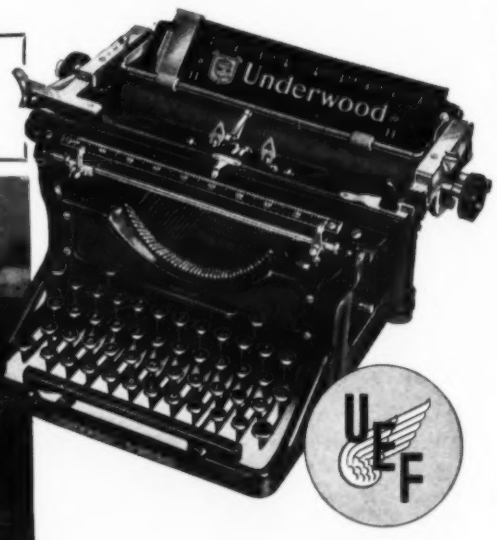

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MAYORS AND CITY COUNCILS THREATENING THE INDEPENDENCE OF BOARDS OF EDUCATION

The Board of Education and the *Internal Accounts* of the School[1]

Maurice G. Osborne[2]

Internal accounting in public schools is that part of the transactions within a school district which concerns the receiving and paying out of money which is collected from sources other than the ordinary ones of state aid and local taxes. While extracurricular activities are the reason for the majority of internal accounts, there may be others, such as key, laboratory, breakage, and cafeteria accounts. These financial records usually include moneys that are received by certain employees of the school district, and, after being held by them for a part or all of the school year, are either paid out for supplies, refunded in total or in part to school children, carried as a balance for the next school year, or turned over to the general fund of the school district. The transactions which necessitate these accounts usually concern at one time or another all the various groups of children or employees of the school district. The philosophy of present-day education has increased the complexity of the extracurricular program to such an extent that more and more money and records are involved. In spite of this situation, the importance of systematic accounting is not so much the amount of money involved at it is the number of persons who are affected by a carelessly kept and incomprehensible record. It goes without saying that where the exchange of money is concerned, and especially public money, good stewardship is essential.

The internal accounts of a school district may be divided into three groups or classifications:

1. The school activities for which the board of education advances money from the general fund for the operation of the project.
2. The internal activities for which the board of education pays periodic bills and then receives refunds in the form of fees and service charges.
3. Those student activities under whose operation the various group or class organizations contribute funds or raise moneys as the result of these activities.

The cafeteria account is a typical example of the first type. The board of education may advance funds for the purchase of supplies or for the payment of cafeteria attendants. It is a responsibility of the board to follow this account until the end of the year when a final deficit will have to be charged against the general fund or the balance on hand in the cafeteria account paid to the general fund.

Telephone charges for long-distance calls made by employees or pupils and fees for damaged or lost library and textbooks are illustrations of the second type. The board pays telephone toll charges and advances money for the purchase of library books. Therefore, the refunds or fees should be turned over to the general fund and under no circumstances be disbursed before being turned over to the treasurer of the district.

The student athletic fund is an example of the third type of internal accounting. This project is usually supported by gate receipts of athletic events and other group presentations.

Centralization of Accounts

In previous years, a large majority of school districts have followed the less desirable practice of allowing each class or group to handle all funds pertaining to its organization. This practice has necessitated numerous accounts under the direct control of the officers of each group. These accounts have been so small that it has not seemed essential to deposit the money in a depository, and, consequently, payments have been made by cash without providing an adequate permanent record. Thus, we see immediately two fundamental factors that should be considered at the outset. All accounts should be centralized into one fund, and all payments should be made by check. While these are not the only principles which should govern internal accounting, if established and followed, they will go a long way toward the establishment of a systematic and permanent record.

At some time or another, the question has probably arisen in the minds of most school administrators whether or not children should be permitted to participate in the financial transactions pertinent to extracurricular activities. Should the children be allowed to incur obligations, handle the receipts of games and plays, and spend the same for the incurred obligations? This is something which most children enjoy doing, but it is questionable whether or not it is the best procedure to follow for the attainment of the greatest good. One might also ask the question whether the financial transactions surrounding extracurricular activities should be kept entirely out of the hands of the children and put under the control and operation of the administrative staff. Are there not two good results to be gained through a systematic plan of internal accounting? One provides permanent records of income and payments of all activities, and the other educational opportunities to the children that will demonstrate to them the simple mechanics of good business administration and accounting, and the benefits of systematic and careful handling of public funds. While it may not be advisable to make the children wholly responsible in such a proposition, it is also not wise to waste the educational opportunities that are available by taking it entirely out of their hands. If a method of supervision is set up whereby the children can participate in the transactions under the guidance of certain members of the administrative and instructional staff, the elements of protection to the funds and the educational advantages to the children can be preserved.

It is a responsibility of the board of education to designate the depository for all district money and it is also its responsibility to establish a policy for the handling of all money whether the source of the funds is state aid, taxes, or money received from student activities. It therefore becomes essential that the board of education know at all times the disposition that is made of all moneys and the status of all funds. After determining its policy in this matter the board should assign the execution of it to the head of the school or the business manager. This official can then set up the basic accounting records in his office and explain to the various class or group officers and group advisers that all moneys are to be deposited and all checks are to be drawn by the central office. Requisitions will then originate with the various groups, be approved by the advisers, and then come to the central office for a final check against available balances. Each class or group should keep its own record of receipts and requisitions. This record should be checked periodically by the adviser and also by the central office. The class or group should also be required to submit periodic reports to the central office so that check-ups can be made over short intervals of time. The educational value to the children will be gained only if they have a definite responsibility in the scheme of things, and, if they are closely coached and supervised in the methods of good business practice. Honesty, efficiency, accuracy, and punctuality can all be developed in children under the proper guidance.

Reports to the Board

The central office should report the status of each fund and the status of the central bank account to the board of education at certain stated intervals. This dual set of records, one kept by the class or group and the other by the central office, and the two reports, one from the class or group and the other from the central office, should serve to keep all accounts up to date and accurate and teach the children the essential factors to be learned from such a project.

Good business methods are essential in any organization whether the amount of business handled is large or small. Consequently, in a school district the small accounts must be kept as accurately, completely, and timely as accounts in an organization conducted for profits.

The purposes of accounting might be said to be as follows: (1) to give a complete and accurate record of each business transaction; (2) to give such facts as are essential to efficient and intelligent administration; (3) to give information to show how persons intrusted with funds have used them. The last of these three purposes seems to be the one that attracts the most attention from the public and even from the officials of the school district. It is altogether desirable for people to be interested in or wonder what has become of the money of a school district. In order that board members, principals, and teachers may receive the greatest amount of protection and the least amount of criticism, an iron-clad method of administration and accounting is essential.

The principal cannot escape responsibility by delegating these duties, and if he is responsible for the supervision of all the internal accounts, he should have detailed information for reporting to the board of education, and, the board, in turn, should have information for reporting to the State Department of Education. This permanent record should be so complete that it can be understood by people other than those who have actually compiled it, and it should have enough detail so that no one need rely on memory for its interpretation. This arrangement gives protection to the principal who supervised these accounts even though the question concerning their accuracy should arise several years after the records were made. Some principals have had some sorry experiences with internal accounts because of the absence of a detailed permanent record. If the cafeteria receipts and expenditures in a large school district were kept as an internal account, the amount of money handled in a year's time would be large; and, if carried over a period of years, it would amount to thousands of dollars.

If a small group of the board of education or of the citizenry decides that it is opposed to the principal who has been in the school district a number of years, it looks around for a reason to dismiss him. Anything which bears on the integrity of an individual is very appealing to the majority of people, and they are more than willing to condemn a person on circumstantial evidence. Thus, they ask for an explanation of the cafeteria account for a period of years. The principal has kept very poor

(Concluded on Page 76)

[1]The seventh of a series of articles prepared to interpret the Board-of-Education Business Efficiency Rating Card published in the December issue.

[2]Supervisor in Educational Finance, Finance Division, New York State Education Department, Albany, N. Y.

Co-ordinating State Educational Boards: Their *Origin* and *Functions*

*W. Ray Smittle**

The shrunken social income of the period 1930–1935 has directed the attention of the citizenry of the states, seeking relief from burdensome taxes, to the financial and educational operation of their educational institutions — elementary, secondary, and higher. Evidences of financial waste and of instructional inefficiency at each educational level have been apparent to impartial observers and critics. The several plans whereby two or more educational units or institutions in certain states are controlled by a single board have been widely discussed in magazines, and in professional meetings.

A number of state legislatures have been asked recently to create an educational board, or boards, with powers commensurate to the task of developing a unified state system of education in which the work of each educational unit, the elementary, the secondary, and the higher, are co-ordinated[1] and the three units articulated[2] into an integrated state system of education.

The state lawmaking groups of the past century have been severely criticized for distributing control over state educational systems among many educational and noneducational agencies, and this distribution of power is held to be responsible for our educational inco-ordinations. The criticism is not altogether merited by the lawmaking groups of the period 1785–1900. A study of the constitutional and statutory laws of the nineteenth century reveals important facts concerning the work of the lawmaking groups and the attitude of groups with vested academic, occupational, and financial interests toward the enactment of laws intended to develop state education as the most important or one of the important functions of state government. Each of the several plans whereby a single board today has co-ordinating control of two or more educational units or institutions and is vested with more or less authority to develop a unified state system of education, with the exceptions of the plans in operation in New Jersey, North Carolina, and West Virginia, was developed prior to 1900. It is a matter of record that educational bills formulated and laws passed in one state as early as 1857 gave greater control over education to a single board than are exercised by any board today or probably will be exercised during the next century. In this case, as in others, the petty interests of groups vested with occupational rights were, in part, responsible for the revision and later repeal of the law.

The purposes of this article are: to describe briefly the types of co-ordinating educational boards that now exercise general control over two or more educational units or institutions in the several states; to review the salient features of laws which created co-ordinating boards; and to indicate distinctive laws, and regulations of educational boards, that were made prior to 1900 to co-ordinate and articulate the work of separate educational units.

Types of Co-ordinating Boards in Operation

Thirty-nine of the 46 states which maintain two or more institutions of higher learning have vested some measure of control over the educational and fiscal functions of two or more educational units in a single board. These co-ordinating boards may be grouped into six types, in general, for the purpose of indicating the scope of their functions.

Group I includes the five states in which a single governing board has general control and management of the institutions of higher learning and supervision of the elementary and secondary schools.

Group II includes the six states in which all institutions of higher learning are under the control of a single governing board, while supervision of the public schools (elementary and secondary) is vested in the state department of education.

Group III includes the thirteen states in which the general control and management of all teacher-training institutions and supervision of the elementary and secondary schools are placed under the state board of education.

Group IV includes the nine states in which the separate teacher-training institutions only are placed under the control of a single board.

Group V includes the three states which have adopted measures for co-ordinating the work of two or more institutions that are distinctive to each state.

Group VI includes the six states which have assigned co-ordinating curricular function of two or more state institutions to a board which is supplementary to the local governing board.

These six general types of boards are not mutually exclusive, since four states have each established two types. Of these four states, Alabama and Oklahoma appear in Groups III and VI, Texas in Groups IV and VI, and New Jersey in Groups III and IV.

Each of the types of co-ordinating boards as found in the states of Groups I, II, III, and IV, and in one state of Group V was established by constitutional or statutory laws in several states prior to the year 1900.

Features of Boards in Group I

It is generally believed that state educational systems can be most economically administered when all the units are controlled and supervised by a single board exercising broad discretionary powers over the financial and educational development of educational institutions. This type of board is in position to co-ordinate the work of the institutions of higher learning, of the secondary schools, and of the elementary schools and to articulate these into a unified state system of education, provided the laws do not distribute important conflicting powers and duties to other agencies.

Five states today have a single educational board exercising some degree of general control over all institutions of higher learning — together with more or less supervisory control over the public schools. This type of board was established by New York in 1904, by Florida in 1885, by Idaho in 1913, by Montana in 1913, and by North Dakota in 1919. Constitutional and statutory laws relating to the composition, organization, and powers of the individual board, and the relationships existing between the educational boards and other educational agencies vary appreciably from state to state. Idaho and New York are states which have highly centralized state systems of education. Florida, Montana, and North Dakota have conferred important powers and duties upon the chief state school official and other agencies. Consequently the boards in these three states are not in a position to develop a unified state system of education.

The lawmaking bodies of Georgia in 1785, of Iowa in 1857, and of Alabama in 1858, envisioned the plan of placing a single board in control of education at all levels prior to such establishment in any of these three states. Only one of the five states that now have a single educational board in control of the state system, Florida, created its board prior to 1900.

Florida. The Florida State Board of Education was created by the constitution of 1885, and given supervisory control over any institutions that might be established by the state. The legislature of 1889 vested nominal supervisory control over public schools in the state board. This board has played an important part, dating from the time of its establishment, in the development of a unified state educational system, due to its type of organization and prescribed functions.

Georgia. In Georgia, the Act of 1785, Section 3, chartering the trustees of the University of Georgia, provided that all property given or granted by the government of the state for the advancement of learning was to be vested in the trustees. The fourteenth section of the act authorized the board of trustees to establish public schools or branch colleges as parts of the university, which should be subject to the provisions of the original charter affecting the parent institution. In other words, the corporate body designated by the name of the Board of Trustees of the University of Georgia endowed with perpetual succession was given supervision of the entire educational system of the state which might be dependent for support upon any portion of the public funds.[3]

Iowa. The constitution of Iowa, adopted in 1857, placed public education, including common schools and other educational institutions, under the management of a state board of education for a period of five years. At the expiration of the period the legislature was given authority to reorganize or abolish the board as it saw fit. The board was directed to employ a secretary as its executive officer.

The state board was given "full power and authority to legislate and make all needful rules and regulations in relation to common schools and other educational institutions that are instituted, to receive aid from the School or University Fund of the State; but all acts, rules and regulations of said Board may be altered, amended or repealed by the General Assembly; and when so altered . . . shall not be re-enacted by the Board of Education." The power to levy taxes or to make appropriations for educational purposes was vested in the legislature. This division of authority between the board and the general assembly was a compromise made necessary by those who favored complete legislative and adjudicative control over state education in the board of education, thereby making education, in general, a fourth department of government. Another feature of the bill, eliminated as a part of the compromise, provided for the appointment of a chancellor as the professional executive officer of the board to exercise important adjudicative powers under

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[1] "Co-ordination" in this article refers to the development of harmonious relations between the institutions of each of the three educational units. Thus, when all institutions of higher learning in a particular state are meeting the educational needs of the people without unnecessary duplication of effort and curricula, that state has a co-ordinated system of higher education. Likewise, when the secondary and the elementary schools are meeting the needs of the citizenry at their respective levels in a maximal way, each of these units may be said to be co-ordinated.

[2] "Articulation" refers to the jointing of the elementary school to the secondary school, of the secondary school to the college, and of the college to the graduate school. When a student can pass from the elementary school to the secondary school, from the secondary school to the college, and from the college to the graduate school and continue his training in each successive unit according to his preparation, individual needs, interests, and special aptitudes without undue loss of time and energy, the several divisions of the educational system may be said to articulate.

[3] Russel, Richard B., "The Legal History of the University of Georgia." *Georgia Law Review*. June, 1928, pp. 3–5.

the board. The board was abolished in 1864.[4] The influence exerted by educational groups in securing the abolition of this board stands in striking contrast to the high motives that actuated the men who had worked in the Constitutional Convention of 1857.

A few educational writers today believe that eventually public education will be administered as a fourth department of government. This type of educational control would be the next logical step in the evolutionary development of public education in the states of Idaho and New York. The attempt of Iowa to place her educational system upon this basis as early as 1857 represents one of the outstanding pieces of educational legislation passed by any state lawmaking group in the history of school development in the United States.

Alabama. The constitution of Alabama adopted in 1868 provided that the state board of education should be made, *ex officio,* the Board of Regents of the State University. This board was abolished in 1875, and a separate board of trustees created to control the University.

The attitude evidenced by groups interested in the administration of the University of Alabama by its own board of trustees was duplicated in many states during the second half of the nineteenth century. This attitude cut the groove which nurtured the later development of financial wastes and instructional inefficiency of many state educational institutions operating under separate boards. Thus the present generation of educators condemn a system in the development of which their predecessors in office played a major part.

Group II

Six states have placed the general control and management of their state higher educational institutions under single central governing boards. Supervisory control of the public-school system is vested in the state department of education. This lack of organic relationship between the agency administering higher education and the one supervising the public-school system renders difficult the articulation of the work of the public schools with the curricula of the institutions of higher learning. The necessity for articulation assumes considerable proportions when one considers that the product of the public schools become the raw material and, after four years, the finished product of the colleges. Furthermore, a large percentage of the graduates of the colleges return to the public schools as teachers and administrators.

The present co-ordinating boards were established in South Dakota in 1897, Iowa in 1909, Kansas in 1925, Oregon in 1929, Georgia in 1931, and Mississippi in 1932. One additional state of Group I, Montana, first placed control of all state institutions of higher learning to be established, under a single board in 1889.

Montana. The Montana constitution of 1889[5] created a state board of education for the general control and supervision of the institutions of higher learning that were to be established. The first legislature, meeting in 1893, regulated the powers and duties of this board, provided for the creation of a number of colleges, and authorized local executive committees for two of the proposed institutions — the Agricultural College and a normal school.

The statutes defining the powers and duties of this board appear most remarkable in view of the status of higher education in the United States during the second presidential term of Grover Cleveland. These powers included: selecting and appointing all administrative, instructional, and staff employees; determining their terms of office, rate of compensation, and prescribing their powers and duties; collecting all receipts and disbursing all funds of the institutions; prescribing requirements for admission and graduation; adopting rules and regulations for the government of the institutions; and granting to teachers life diplomas and state diplomas valid for six years.

South Dakota. The South Dakota constitution of 1889[6] placed all institutions of higher learning under the general control of a board of education. Under the statutory regulations of 1890, the board was required to appoint a board of trustees for each institution. This board had full power to inquire into the official conduct of the trustees at any time, and to remove any or all trustees for sufficient cause.[7] An amendment to the constitution in 1896 provided that all institutions of higher learning, maintained wholly or in part by the state, should be under the control of a single board of five members. The legislature of 1897 created a state board of regents. This board has been in continuous existence since that time, with powers and duties over the institutions substantially as provided by the legislative acts of 1897 and 1903.

Group III

Thirteen states now have placed in the hands of the state board of education, the general control and management of separate teacher-training institutions together with the supervisory control of the public schools. The distinctive relationships existing between the public schools and the teacher-training institutions whose primary function is to educate prospective teachers, supervisors, and administrators for the schools, demand a high degree of articulation between these two units. Articulation is more easily secured when control of the two units is vested in the same board. However, in a number of states this articulation of the state board has been minimized by the policy of placing other state colleges or universities under separate governing boards.

The state board of education became a co-ordinating board in the State of Massachusetts in 1839, Maryland 1872, Rhode Island 1872, Tennessee 1875, Connecticut 1889, Oklahoma 1901, New Jersey 1903, Vermont 1910, Alabama 1919, New Hampshire 1919, Louisiana 1922, California 1929, and Virginia 1930. Five of these thirteen states created and placed the state board of education in control of the separate teacher-training institutions, with supervisory control over the public schools, prior to the year 1890. The procedures followed in some of the states in this group were distinctive and are of importance to persons interested in the history of education.

Massachusetts. The first normal school in the United States was established in Massachusetts in 1839, and a board of trustees was appointed to supply the buildings and equipment. The state board was directed to establish and maintain a normal school in the buildings provided. A law of 1870[8] placed the general control and management of the normal schools, including control of the expenditures of all state appropriations, in the state board of education. This board was succeeded by the advisory board of education in 1919.

Maryland. The first normal school was established by law in 1872,[9] with control vested in an *ex officio* board of trustees composed of members of the state board of education. At a later date the state superintendent was made a member, *ex officio* of the board of trustees. Consequently from a legal standpoint the board of trustees of the teacher-training institutions and the state board of education supervising the work of the public schools are separate and distinct. Yet from a practical standpoint they may be considered as one board.

Rhode Island. The commissioner of public schools of Rhode Island was authorized by the legislature in 1854[10] to establish a normal school, and in 1857[11] to locate the school at Woonsocket. In 1872[12] the institution was placed under the control of an *ex officio* board of trustees composed of the state board of education and the commissioner of public schools. As in Maryland, from a practical standpoint, the board of trustees of the teacher-training institution in Rhode Island is the same as the state board of education.

Tennessee. The legislature of Tennessee created a state board of education in 1875,[13] and authorized this board to establish such normal schools as the state might need. The state board has limited supervisory control over the public-school system.

Connecticut. The legislature of 1889 provided for the establishment of two normal schools, and placed these under the control of the state board of education.[14] Additional schools were placed under the control of this board at the time of their establishment.

Group IV

Nine states have placed the general control and management of separate teacher-training institutions under a single educational board. No organic relationship exists between the teacher-training institutions in this group of states and other state institutions of higher learning, as in the states of Group II, or with the public-school systems, as in the state of Group III. The chief state school official, the executive head of the public-school system, has *ex officio* membership on each board with the single exception of Texas. The chief state school official is thus in position to exert considerable influence over the articulation of the secondary schools with the normal schools and teacher's colleges.

The separate teacher-training institutions were placed under the control of a co-ordinating board in Minnesota in 1858, Wisconsin 1858, Maine 1873, Michigan 1849, Nebraska 1903, Colorado 1909, Texas 1910, Illinois 1917, and Indiana 1918. Four states in this group created and placed a single board in control prior to 1900.

Michigan. The state board of education was created by the legislature in 1849 to govern the state normal school which was to be established. The number of, and the method of selection of, members of this board were provided by the constitution of 1850. In 1855 the control of the agricultural college was vested in the board. Unfortunately the board did not sense its opportunity for developing a co-ordinated system of public higher education, as is evidenced by the fact that it recommended a separate board for the agricultural college in its annual reports

[4]Aurner, C. R., *History of Education in Iowa.* The State Historical Society, 1914, Vol. II, pp. 105–131.
[5]Article 11, Section 11.
[6]Article 14, Sections 3 and 4.
[7]Session Laws 1890, Chapter 6.
[8]Session Laws 1870, Chapter 106.

NEWARK ACADEMY IN 1836
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[9]School Laws 1872, Chapter 377.
[10]Session Laws 1854.
[11]Session Laws 1857, page 1337.
[12]Session Laws 1872, Chapter 56.
[13]Session Laws 1875, Chapter 90.
[14]Session Laws 1889, Chapter 186.

(Continued on Page 50)

Professional *Salary Schedules* for Teachers—II

Robert D. Baldwin[1]

The present paper concludes a discussion of salary schedules begun in the June issue of the Journal. While Dr. Baldwin uses West Virginia conditions to make his discussion specific, the principles enunciated apply to every state. School boards may well take them into account in developing local salary plans. — Editor.

PROCEDURE FOR BUILDING THE SALARY SCHEDULE

It is professional salary schedules about which we are thinking. Such schedules must be built to specifications adapted to those who enter the profession for continuous and expanding service. While the in-and-out, stop-gap, certificated practitioner will doubtless be with us for some time, and fortunately frequently renders excellent service, salary schedules cannot be built for him. It is well to repeat here that the ultimate purpose of any properly conceived salary schedule for teachers is to attract to and retain in the profession men and women of outstanding character and teaching power.

Now, the building of a salary schedule is by no means a casual chore. Perhaps that is like the waggish definition of psychology as the vociferous reiteration of the obvious; and yet salary schedules are so often hastily and arbitrarily established that it may be well just to raise a few of the questions which at least require consideration before even the foundations can be laid. For example, are we to have the single or the differential type? In other words, are teachers to be paid according to preparation and experience or according to sex or the grade that they teach? The merits and disadvantages of the single type have been widely treated. The weight of opinion as well as present tendency seem to favor it, chiefly as representing a relatively objective plan of rewarding at least potential teaching power.

On the other hand there is the question whether men should be paid more than women, the discussion of which has generated more heat than light. There is neither inclination nor space to argue it here, except perhaps to suggest that it raises no question of the relative ability of the sexes. Rather it is fundamentally an economic question, which may be framed: Economic conditions and the normal expectancy of family responsibility for men in comparison with women being what they are, can the state attract and retain men of the desired training, ability, and experience at the same salary which will attract and retain women of comparable qualifications? To put it another way, is the state economically justified in raising the salaries of women teachers to the point which they must reach if capable men are to be held in the profession? Perhaps the fundamental question, after all, is whether the state wants men to share in the function of educating its childhood and youth. In this paper the writer assumes a positive answer and acknowledges its economic implications.

Again there is the question whether the schedule should be both enacted and supported by the state. West Virginia has enacted a minimum schedule covering both training and experience, but supports only the basic training aspect, leaving the experience items to be financed locally.

Large or Small Salary Differentials?

Somewhat related to the above is the question whether the large or the small differential between beginning and maximum salary is likely to prove the more potent incentive for entrance into and continuance in the profession. In this connection it may be cited that $180 represents the financial progress of the teacher with a given amount of training from his initial to his final, be it his eleventh or his fortieth year of teaching, in the present West Virginia schedule. This figure is to be compared with the differentials between beginning and final salaries in the schedules of the vast majority of city school systems where such schedules exist, which vary from a low of $600 to a high of $1200. That is, they are from three and one-third to six and two-thirds times as large as the differential of the West Virginia salary schedule.

Can this differential be increased without throwing an unwarranted additional financial burden upon the state? Elsewhere[2] the writer has presented in some detail a plan whereby it is believed this result may be obtained. Briefly it is this: If it be assumed that the present aggregate of salaries is adequate, then, without raising this aggregate, final salaries may be considerably stepped up by lowering somewhat the salaries of beginning teachers. This proposal assumes, of course, that there is to be professional tenure professionally determined.

Another question meriting preliminary attention is: How low a grade of professional preparation ought the schedule to countenance? Arizona and Washington no longer certificate for teaching any whose preparation covers a period of less than three years beyond high school, and California raises the requirement to four. It is now generally accepted that two years constitute a minimum of essential professional preparation for beginning teaching service. At the present writing 63.7 per cent of the elementary- and 99.8 per cent of the high-school teachers of West Virginia measure up to this standard. Considering these facts, and in view of the large number who already meet the standard but are not teaching, and especially pondering the obligation to draw ever closer to its goal of equal educational opportunity for all its children, whose needs, after all, take precedence over other considerations, may not the state quite justifiably discontinue issuance of certificates below the standard normal, and progressively eliminate the lower-grade certificates from the salary schedule?

Of course this raises again the financial question, for the lower-grade certificates in the present schedule command less salary than those of higher grade. Were the lower certificates merely to be eliminated and the others to carry the same salary as at present, a considerable additional expenditure would be entailed. The plan proposed at the end of the second paragraph preceding for increasing the differential between beginning and maximum salaries without increasing the aggregate may prove to be a constructive suggestion in this instance also.

Adequacy of Schedules

Even were his wisdom adequate, in so brief a paper the writer may not hope to present conclusive answers even to the not-too-exhaustive array of questions raised. It must be clear that what has been suggested heretofore has been concerned with basic policy in salary scheduling, scarcely at all with the adequacy of the state salary schedule itself. To this latter question we must now turn. Several methods have been used to do this. Three are all we will have space to consider here: (1) comparison with salaries of those engaged in other callings; (2) comparison with salaries of teachers elsewhere; (3) discovering, from such data as may be available, the money costs of meeting ordinary living costs and of liquidating the risks of personal illness, unemployment, death, and old age.

In the latest available comparison of salaries of teachers with those of other occupational groups, as of the year 1933,[3] the average salary of all teachers, principals, and supervisors in the United States stood tenth in the list of eleven groups, just two dollars above the average income of other state and county government employees. (See Table I.)

TABLE I. Average Annual Incomes of Various Occupational Groups for 1933[1]

Consulting engineers*	$3,940
Lawyers*	3,879
Physicians and surgeons*	3,079
Dentists*	2,413
Classroom teachers in 65 cities over 100,000 in population†	2,199
Salaried employees in certain industries	1,641
Clergymen†	1,573
Federal government employees	1,434
City government employees	1,414
All public-school teachers, principals, supervisors in the U. S.†	1,316
State and county government employees	1,314
All public-school teachers and principals, state of West Virginia†	946
Maximum salary, M.A. degree, 11 or more years experience, by West Virginia State Salary Schedule	1,170

[1]Adaptation from figures in *Research Bulletin* of the N.E.A., September, 1935; p. 243.

*Individual entrepreneurs—does not include income from property.

†Salaries only.

But it is hardly fair to compare teachers with consulting engineers, lawyers, physicians, dentists, and salaried employees in certain industries, since teaching is essentially a socialized calling. However, these teachers also fell behind clergymen, federal employees, teachers in 65 of the largest cities, and city employees, all representing socialized callings. Even with so low a record for teachers nationally, in the same year the average salary for teachers in West Virginia was $946, less by $368 than that of state and county employees, the lowest ranking group, and less than that of teachers the country over by $370. Not only so, but the state salary schedule for classroom teachers, adopted the same year, sets a final maximum, after eleven years of experience, for a holder of a master's degree, of $1,170. The figures from the State Department of Education indicate that the average salary for all teachers and principals in West Virginia for 1934–35 is $1,074, an average increase over 1933 of $128. Even so, unless we assume that there has been a very marked drop the country over, the West Virginia figure still trails the national average for teachers, low though this was in comparison with most of the other socialized callings, by $242.

The Teacher's Cost of Living

Let us turn now to the third method of evaluating the adequacy of the West Virginia salary schedule. Unfortunately we have no studies of the cost of living of West Virginia teachers under the county unit organization. There is, however, the excellent study just referred to, which scrutinized the incomes and

[1]Professor of Education, West Virginia University, Morgantown.

[2]American School Board Journal (September, 1924) "Starting Something."

[3]*Research Bulletin of the National Education Association* (September, 1935), "The Teacher's Economic Position," p. 243.

expenditures of 2,358 teachers in city school systems of the United States for the year 1932–33. The average salary received by these was $1,849 for single women and $2,249 for married men. We feel justified in using these for comparison with West Virginia teachers because they contain about the same proportion of principals (less than 4 per cent) as does the state group.

The salaries of this group of 2,358 teachers were expended as indicated in Table II. These figures represent average *actual* expenditures, not estimates.

TABLE II. Average Distributions of Salary Income to Budget Items by 1,955 Single Women and 403 Married Men Teachers in Cities, 1932–33[1]

Budget Item	*Single Women*	*Married Men*
Food	$ 266	$ 440
Rent	209	198
House operation	159	329
Clothing	212	194
Taxes	45	92
Interest	34	112
Health	98	127
Transportation	143	207
Aid to dependents	118	59
Gifts and donations	160	109
Education and recreation	126	137
Miscellaneous	70	74
Surplus or saving	209	171
Total salary income	*$1,849*	*$2,249*

[1]Adaptation from figures in *Research Bulletin* of the N.E.A. September, 1935; p. 189.

The items for which expenditures were made can hardly be called into question, though some may disagree as to the amounts involved. The point is that they are indices of actual needs of teachers who were sufficiently socially minded to expend all the energy necessary to fill out carefully month by month the expense and income forms which were used in the study, and who, it may be safely assumed, were both watchful spenders and at the same time self-respecting participants in the affairs of their respective communities. It is, however, the writer's desire to represent what might be fairly called the essential living cost to the average teacher. He is therefore arbitrarily deducting amounts spent for aid to dependents, as somewhat unusual on account of the depression (at least we hope this is the case), and surplus and savings, as representing profits, which may be called into question by some who assume that, if the risks aforementioned are cared for, profit is no part of the income of one engaged in a socialized calling. The writer is not necessarily agreeing with this position, though there is a point here; but he does wish to give the benefit of the doubt in establishing a living-cost figure which will meet with general acceptance. The deduction of these two items reduces the average cost of living of these teachers to $1,522 for single women and $2,019 for married men.

But we must try to equate the conditions of this city group to those of the West Virginia group, many of whom teach in village and rural schools, though we must keep in mind that in West Virginia the support of the public and the profession has been enlisted in the county unit with the earnest assertion that its purpose was to bring advantages previously enjoyed in the centers of population to the children at the head of the hollow. Two adjustments seem necessary, one for the urban partly rural difference, and the other for the national-local difference, since the above study was of teachers in cities pretty much country-wide.

A Comparison of Living Costs

To care for the first the writer used indices of the cost of living developed by Harry in his New York study.[4] The average of the indices for the six largest cities included New York,

[4]Harry, D. P., *Cost of Living of Teachers in the State of New York.*

MR. H. H. EELKEMA
Superintendent of Schools
Duluth, Minn.

Mr. Eelkema, formerly superintendent of the Proviso Township High School, Maywood, Ill., has been elected superintendent of schools at Duluth, Minn., for a three-year term, beginning with July 1, 1936.

Mr. Eelkema, a native of Iowa, was graduated from Upper Iowa University with the degree of B.A. in 1916. In 1931 he was given the Ph.D. degree at the State University of Iowa.

Mr. Eelkema has had 22 years' experience in educational work, of which 19 years were spent in the administration and supervision of schools. He was superintendent of the Proviso Township High School, in Maywood, Ill., for three years, and previously was superintendent of schools in Mankato, Minn., in Groton, S. Dak., and assistant in education at the Iowa State University.

Rochester, Syracuse, Yonkers, Utica, and Schenectady, 110.87, was divided into the average of the indices of six of the small villages, 92.71. The largest of the villages had a population of 4,878, and none stood above the lowest seventh in index of living cost. The indices of the six cities were well within the upper quartile, except Utica, which ranked twenty-sixth among the 85 communities studied. The quotient thus obtained is .827, which expresses the relation of cost of living in partly rural with that in urban areas, at least in New York. So far as the writer knows, this is the most careful study of relative cost of living in urban and semi-rural communities, and may be fairly assumed to hold for the country as a whole. Thus the standard of living enjoyed by the city teachers would cost in partly rural communities, the amounts indicated in column 4 of Table III.

TABLE III. Equating Basic Living Cost of Men and Women City Teachers to West Virginia Living Costs

	Basic living cost in cities	*Urban partly rural adjustment factor*	*Partly rural living cost (2 x 3)*	*National-W. Va. local adjustment factor*	*W. Va. basic living cost (4 x 5)*
1	*2*	*3*	*4*	*5*	*6*
Married men	$2,019	.827	$1,670	.983	$1,642
Single women	1,522	.827	1,259	.983	1,238

To care for the national-local difference, the indices of the United States Bureau of Labor Statistics of the cost of living for December, 1932, were used. Those for Pittsburgh and Cincinnati, which cities might be thought to represent the general region of which West Virginia is a part, were averaged and compared with the national average. The former figure was 97, and the latter 98.7. Thus the cost of living for the West Virginia section was 98.3 per cent of that for the country as a whole. Making this adjustment, we get the figures in column 6 of Table III, which fairly represents the West Virginia equivalents of the average basic cost of living of city teachers.

Among the costs of liquidating risk which the teacher's salary should properly include, let us first consider health and accident insurance. Group insurance of this sort entered into by the majority of teachers, usually 75 per cent of a given system, and contributed to by the school board, would reduce this cost somewhat. But the fact that school boards generally have not taken to this idea and the high mobility of teachers cause it to remain largely an individual matter. More stabilized tenure may eventually establish group health and accident insurance for teachers. As matters stand, however, on the individual basis the annual cost of the standard policy is $27.50 for men and $55 for women up to age 49.

The Unemployment Danger

Another risk which has loomed large recently in teaching as in other fields is unemployment. Pending intelligent selection of entrants and demand-limited output by institutions preparing teachers, this bids fair to remain a significant factor, though it will probably press hardest on those who have not actually begun teaching service. The economical plan for the state would be to limit the output of trained teachers to approximately the demand, thus reducing both the cost of preparing the lessened number and also the number requiring protection against unemployment. Since this has not been done, and since the state does not carry the aggregate risk in this matter, as is frequently done in industry in co-operation with the employee, the teacher must carry the risk as an individual burden. Computation of the amount needed to carry this risk is a problem which even the best of actuaries confess themselves unable to solve, under current conditions, with any assurance of accuracy. Since such insurance for teachers has not, to the best of the writer's knowledge, been even tried, he will not attempt to set up any administrative machinery for this purpose, but will be content, even then with some hesitancy, to suggest a possible basis of calculation of the amount which would have to be added to the teacher's salary to care for this risk. It is conservatively estimated that at the present time there are in West Virginia certificated teachers, eligible for appointment and with at least some experience, now involuntarily unemployed, to the number of 2,000. Still trying to be conservative, let us assume that 20 per cent of these have questionable service records and may therefore be regarded as unemployable. This still leaves 1,600 unemployed teachers. Ignoring those who have recently graduated and have never been employed as teachers, but who nevertheless are competitors for the 15,741 positions listed by the State Education Department for 1935–36, we find the average teacher in West Virginia, even if these conditions merely remain constant instead of growing worse, facing involuntary unemployment one year in ten. That is to say, at the end of nine years an accumulation of deposits or savings and interest would need to be available to pay him a year's salary, less the amount required to purchase this unemployment protection. If we assume this remainder to be $1,600 for single women and $2,150 for married men, the amount to be added to the teacher's salary to be used annually to acquire this protection would be approximately $150 and $200 respectively.

Life Insurance Factor

The risk of death is liquidated by life insurance, the purpose of which is to care for surviving, dependent loved ones. The amount of

protection should vary with the number and age of the dependents. The character of the dependents usually is related to the age of the insured, as is the number also, though the relation is not the same. The available facts on these matters for teachers are quite limited. In the study previously referred to, the 1955 single women averaged .9, and the 403 married men 2.5 dependents. If we ignore the ages of the dependents and the insured, which ought not to be done, but which, under the circumstances, we can hardly avoid doing, we may say that men need about two and one-half times as much insurance as women. The face value of life insurance actually carried by women was $3,429; by men $7,170.

These amounts in relation to the actual dependents were probably inadequate, certainly so according to generally accepted standards of protection. For example, during the war each recruit was permitted $10,000 face value of life insurance. Most of these were young men who had taken on no responsibilities for families of their own, and whose earning capacity probably was not beyond the average earnings of the single women teachers, which were $1,849 for 1932–33, or, in 1917–18 dollars of purchasing power, $1,606. If we assume that the raw recruits averaged about the same number of dependents as the women teachers of the study, and that an average of the insurance actually carried by the women teachers and that regarded by the government as proper for the recruit represents fair protection for the former, we arrive at about $6,700 as the amount of protection for women teachers. Since the men in the study have approximately two and one-half times as many dependents as the women, if we use dependents as the gauge, we will set $16,750 as adequate protection for the men. Straight life policies taken in a standard company at age 22 for the stated face amounts would cost $134.40 and $336 for women and men teachers respectively. Dividends would probably reduce these figures to about $100 and $250 respectively.

No attempt is made here to go into the question of varying protection at different periods in the life of the insured, since this is a figure based on averages. Nor is there any certainty that the amount of insurance is adequate. The figures suggested are, however, based on what appears to be actual practice of teachers and the government in insuring, somewhat checked by the life-insurance principle of carrying protection in proportion to the number of dependents. Group life-insurance rates have not been used for two reasons: (1) They are frankly based on minimum protection and chiefly to cover only the tiding-over period of the earliest earnings; (2) group insurance is written with the partial or complete carrying of the burden by the employer; and employing boards of education have not been enthusiastic about it. Hence it is here considered a charge to be carried by the individual teacher, a proper item in the teacher's adequate salary.

Since West Virginia makes no provision for retired pay, the salary schedule must carry this risk. As was stated in the former paper, it would be more economical for the state annually to deposit amounts sufficient, with accrued interest, to provide retired pay for all who teach through to retirement than to include in the yearly salary of each teacher an amount sufficient to enable that teacher individually to care for that risk. The latter plan carries the risk for all teachers, whether they remain or not; the former only for those who teach to retirement age.

Retirement Allowances

Some questions arise which condition the cost of this item; (1) What is the proper age for retirement? (2) What is an adequate retirement allowance?

The proper age for retirement clearly should be the point just before diminishing returns in the teacher's guidance of the learning of children. That is difficult to fix upon, since obviously it will vary among different individuals. Hence, in the plans for retirement in which teachers and the state both participate, usually arbitrary ages are determined upon. Seventy is the most frequent age for compulsory retirement, but Wisconsin permits retirement at 50, several states at 60, and Pennsylvania at 62. With the growing pressure for positions, the sterner competition, and the evident desirability of maintaining a resilient vigor and vitality in the teaching personnel, 62 does not seem too early an age for retirement. At that age one should not have begun so seriously to fail in teaching power as either to jeopardize the learning of children or to have to leave with feelings other than pride in exacting work well done, and still might have full use of his faculties for voluntary service to his fellows and for the enjoyment of more extended leisure. Retirement at 62 for one who had begun teaching at 22, the normal age for graduation from college, would usually mean 40 years of teaching service. Most of the plans, including the actuarially sound ones, permit retirement after a shorter period of service.

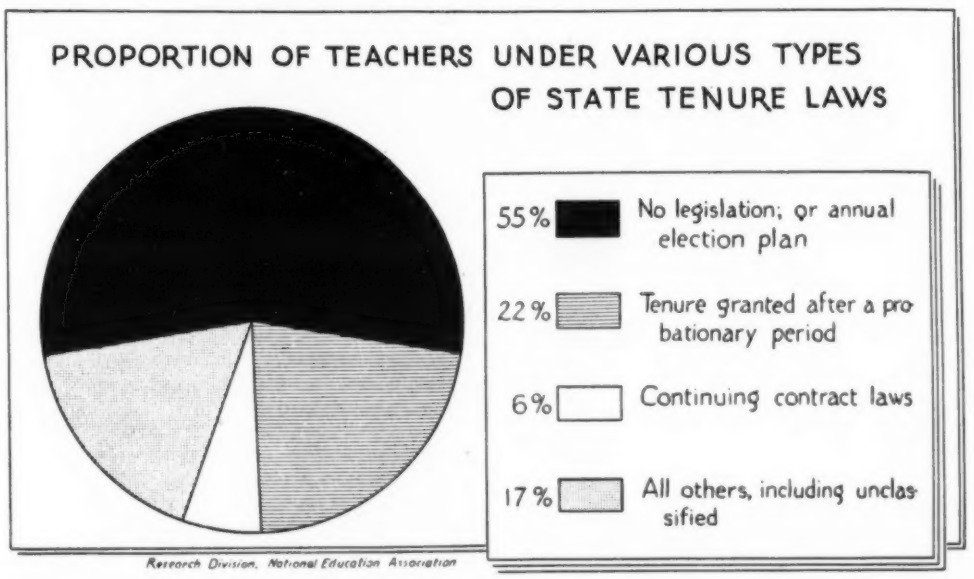
Generally the retirement allowance or retired pay is a factor of the salary received before retirement. In practice it varies from one-half to full pay, with the larger number toward the lower end of the scale. This is because retired status generally does lessen living costs and eliminates certain risks. Fairness would seem to require that those whose salary allowed for savings should place at the lower end of the scale. Since none of the computation in this paper has allowed for savings for teachers, the writer suggests that the average retired pay for teachers be about two thirds of the average salary herein computed, or about $100 and $135 per month for men and women respectively. This would require annual deposits of $222 and $270 respectively.[5]

Gathering together the economic components of the costs of living and risk liquidation of West Virginia teachers, we have the following:

Computed Average Salaries	*Women*	*Men*
Basic living cost	$1,238	$1,642
Health and accident	55	28
Unemployment reserve	150	200
Life insurance	100	250
Retirement annuity	222	270
Total	$1,765	$2,390

It must be recalled that the figures above have been arrived at from a beginning made with 1,955 single women teachers and 403 married men teachers in certain cities. The experience of these teachers averaged 16.5 and 13.2 years respectively. In other words, the maturity and experience of the group upon which this computation has been based were both high, sufficiently so to place them at the maximum salary levels on the West Virginia state salary schedule. Unfortunately we do not know the extent of their training, and so cannot designate their place in this particular on the schedule. But, from the facts that we do know, it is safe to suggest that these figures represent a high point on the desirable state schedule from which there would be a grading down for those of less experience. How high a point it is impossible to indicate because we have no particulars as to the average training of the original city teachers.

It is, however, fair to point out that these figures do considerably overstep the maximum figure on the state schedule based on both training and experience. This maximum figure is $1,170. This they do because they are based upon the fundamental economic considerations treated at some length in the first paper. These we may briefly state again: If teaching, a socialized calling, is to attract and retain men and women of outstanding character and teaching power it must meet the fact of an acquisitive, capitalistic society and its lure to the individualized callings, with an economically sound professional salary schedule adequate to (1) meet ordinary current living costs, (2) liquidate the risks of personal accident and illness, unemployment, death, and old age. Of course the above proposed figures can be considerably reduced, but even then not to the level of the present schedule, by the state's adopting: (1) a plan of retired pay, protected by professional tenure professionally determined: (2) a plan of noncontributory, state-financed accident, health, and life insurance; (3) a plan of preparing, with a small margin for safety, only enough teachers to meet the forecast needs of the schools.


PROPORTION OF TEACHERS UNDER VARIOUS TYPES OF STATE TENURE LAWS
55% No legislation; or annual election plan
22% Tenure granted after a probationary period
6% Continuing contract laws
17% All others, including unclassified
Research Division, National Education Association

TEACHER TENURE GROWING

Fifty-five per cent of the teachers in the United States are still elected on the annual election plan and have no protection in tenure except the good will of the boards of education by whom they are employed. Greater security for teachers and other school employees is quite as desirable a form of social security as old-age pensions, etc. If the mechanic, the clerk, the salesman, etc., are deserving of consideration and protection against the evils of unemployment, why not also teachers?

[5]Throughout this paper the writer's debt to the courtesy of the profession of insurance is obvious. He wishes especially to acknowledge the assistance rendered by Mesars. Bretz, Ellsworth, Henry, and Kite of Morgantown, and Mr. Davis of the Equitable's home-office staff.

The *Psychology* of Handling People

Richard Ledgerwood, Ph.D.[1]

This article will discuss the psychology of handling people from the standpoint of the problems and needs of the school administrator — particularly the school superintendent in the smaller community. Except as a student of psychology, a teacher, and an interested participant in the training of teachers, I have no special qualifications to discuss the question.

The situation of the school superintendent, even in the smaller systems, is not wholly peculiar. His work has much in common with that of executives in fields other than education. The school superintendent is primarily an executive, and in this context we may first consider the desirable personal traits of the successful superintendent. Johnson O'Connor, of the Stevens Institute of Technology, has, on the basis of extensive research, enumerated the five following characteristics common to men and women in executive positions:[2]

A. Large English vocabulary
B. Diverse aptitudes
C. Objective personality
D. Accounting aptitude
E. Aptitude for first position

Mr. O'Connor has found that major executives possess, for example, a slightly larger vocabulary than even college professors, the next highest group. He raises the important question "Why do large vocabularies characterize executives and outstanding men and women in every field? The final answer," he says, "seems to be that words are the instruments by means of which men and women grasp the thoughts of others and with which they do much of their own thinking." They are not only the vehicles of communication but instruments for controlling the behavior of others. This finding of the prominence of effective speech among the characteristics of successful executives certainly removes language from the sphere of merely abstract intellectual capacity and indicates its importance in the psychology of handling people.

Administrative Ability Analyzed

I have preferred to regroup the characteristics of the successful school executive under three heads and to include several, extending beyond mere technical proficiency, not emphasized by Mr. O'Connor. A number of these apply with especial force to the executive in the field of education. First, I should mention administrative ability; second, a keen sense of social responsibility; and third, the special training and preparation appropriate to the tasks of a school administrator. Each of these is not a simple trait but represents rather a whole group of requirements.

Under the heading of (1) *administrative ability* I should include (*a*) a capacity for orderly thinking, (*b*) executive force, (*c*) personal address, (*d*) objective attitude, (*e*) participative insight, and (*f*) accounting aptitude. It will be noticed that a number of these occur in Mr. O'Connor's list. One or two I have simply chosen to rephrase.

These traits must not be regarded as mutually exclusive. Administrative ability is undoubtedly a complex of more fundamental capacities, united and combined possibly in an extremely involved manner. I have chosen to make the first item cover more than simply an extensive vocabulary. The *capacity for orderly thinking* refers essentially to the superintendent's ability to define, and think through, devise and test the solutions of, the technical and social and human problems he encounters in his day's work. But it includes more than the capacity for consecutive and valid thought. It also implies a readiness to grapple with problems demanding intense thought, the ability to defer action until a genuine and satisfactory conclusion has been reached, an appreciation of the value of real thinking, and the courage to undertake it and stand by the results.

Under *"(b) executive force"* I should include promptness and dispatch in handling more or less routine matters, deliberateness in making decisions and firmness in adhering to them, punctuality in keeping appointments and maintaining a schedule, and flexibility in the face of varying circumstances and demands. *(c) Personal address,* insofar as it can be defined at all, I regard as being essentially a matter of personal dignity, poise, and self-control, tactfulness and consideration in dealings with others. These two traits of executive force and personal address are extremely important in gaining and retaining the respect of his assistants and the trust of teachers, pupils, and parents. Without them he cannot expect to command the loyalty and co-operation which are essential to his functioning effectively; nor can he expect to enjoy the confidence of the community which he serves.

The Objective Attitude

By preserving *(d) an objective attitude,* I mean approximately the same thing that has sometimes been referred to as extraversion. The school executive cannot afford to be thin-skinned or wear his heart on his sleeve. He must avoid getting emotionally involved in emotional situations, and being called upon more or less frequently to settle personal conflicts which arise in his domain, he must not allow his own feelings to make his decisions for him. As much as the classroom teacher, he must cultivate and maintain a detached and impersonal attitude even under trying circumstances. Such detachment does not imply aloofness or lack of interest; it is wholly compatible with interested but impartial concern and sympathy. Mr. O'Connor remarks that it is difficult for the person who does not preserve an objective attitude "to put himself in the place of another individual and make a decision which seems fair to him or to others." One who would handle people successfully must be primarily concerned with their behavior and not his own thoughts and feelings. Extraversion implies sociability and affability in personal contacts but the individual who mistrusts his qualifications of this kind should be warned against overcompensation in the form of an excess of back-slapping and yarn-swapping.

By *(e) participative insight* I have referred to the same thing that Mr. O'Connor calls a diversity of aptitudes, meaning the ability to appreciate and share, at least imaginatively, the nature of other people's tasks and some of their special difficulties. As Mr. O'Connor points out, "An executive co-ordinates the efforts of diverse individuals. To do this successfully, he must think, reason, or visualize much as does each of his subordinates." He may not be expert in or even acquainted in detail with their various lines of work, but he must understand what they are doing and even have some practical familiarity with it, at least in its broader aspects, if they are to speak the same language. "In many business organizations accountants and engineers must work toward the same end. It is impossible for the executive to have the detailed knowledge of both groups, but in order to co-ordinate their efforts successfully he must have the aptitudes of both."

I prefer to define *(f) accounting aptitude* in somewhat more general terms than Mr. O'Connor does, since he is largely concerned with business executives. By accounting aptitude I refer essentially to the ability to keep track of what is going on and the ability to keep many details in mind at once without losing sight of crucial particulars at moments when important decisions are being made. This aptitude is undoubtedly related to the capacity for critical thinking, but according to Mr. O'Connor it is more than that. "It is an aptitude in the true sense of the word, a flair for figures, a gift for handling clerical details rapidly and accurately." And while this description was meant to apply primarily to business executives, I think no one who knows anything about school administration would deny that it plays a large part there also, in the concrete form of enrollment figures, data relating to teaching staffs, administrative funds and costs, and so forth. "Major executives ordinarily do no actual clerical work but so many of their decisions are based on clerical and accounting statements that they must be able to grasp easily and quickly the significance of clerical records."

The People Dealt With

The remaining two groups of desirable traits (a keen (2) *sense of social responsibility* and (3) *special training and preparation*) can be discussed much more briefly, but before I do that I should like to enumerate the classes of persons the school superintendent is called upon to deal with in his official capacity. The following list is, I believe, inclusive. First, the school superintendent is called upon to deal with his administrative superiors: local government officials, school-board members, and the state board of education. Second, we have to consider his relations to what I choose to call his co-workers, namely, the teachers and principals of the schools in his charge. Next, we must not overlook his immediate assistants, the members of his office staff, if it is only a clerk or secretary, and janitors, caretakers, and property custodians. In the fourth place there are to be mentioned the pupils and their parents, and lastly his other "constituents" in the local community, the taxpayers, business men, and so forth.

I say "constituents" advisedly because, in full accord with Dr. William McAndrews' address before the Oklahoma Education Association, I regard the school superintendent as perhaps primarily a political functionary in the community. Perhaps his chief business will be to represent the educational system of the community in its relation to the other endeavors of the community, to cultivate in his constituents a lively appreciation of its importance in the social economy in order that it may be adequately sustained, and to superintend its orderly and efficient operation. Surely this is a job for a diplomatist.

The keen sense of social responsibility, which I have mentioned as the second necessary characteristic of the successful school executive, embraces a broad social vision of the aims and

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[1]Associate Professor of Psychology, Southeastern Teachers College, Durant, Oklahoma.

[2]Johnson O'Connor, *Psychometrics, a study of psychological measurements.* Harvard University Press, Cambridge, 1934, Page xvii.

objectives of education in democratic society, a just appreciation of the scope of his office and his place in the community, and a genuine personal interest in the welfare and progress of his community.

With respect to *(3) special training and preparation,* I will list only, without further comment (*a*) adequate professional education, (*b*) practical experience, and (*c*) continued study of modern methods. The importance of the last is perhaps most often overlooked but is not to be gainsaid. All of them have an important bearing on the school superintendent's special problems of handling people.

As a general axiom it might be said that in order to handle people successfully it is necessary to understand them. It is not enough merely to observe how they actually behave; we must understand the meaning of the behavior we observe. The successful handling of people involves controlling their behavior, however partially and indirectly. Our object is to get them to do what we want them to do, by so contriving that their behavior is harmonious with our purposes. Much practical psychology has been barefacedly exploitive in tone and intent. I do not believe that this is necessary. In fact I am sure that a practical psychology which is not thoroughly socialized and humanized in its counsels will fall short of its purpose, which is the most economical and effective direction of human effort. It behooves the practical psychologist, then, to make sure first of his own attitude. It must be realistic but socially responsible, not that of a cynical exploiter of other human beings.

Securing Favorable Responses

Adopting this attitude, he will find that one of the most important questions is, Why do people behave as they do? not losing sight of individual differences, the individual case, and the concrete situation. Among the fundamental determiners of human behavior are motives, interests, and attitudes. A deliberate, systematic consideration of them is often sufficient to throw a revealing light upon some perplexing human problem. What is this individual driving at? Why did that person do what he did when he did? How might this teacher be stimulated to do more competent work? What is the real basis of that parent's grievance? What might be done to interest this clerk in his work and make him appreciate its value and importance? Why does that particular school-board member always seem so hostile? Why is some certain principal so constantly at loggerheads with his teachers? How can I make the local taxpayers and business men appreciate the importance of needed improvements in the school plant? These are the sort of questions which occur in the life of a school superintendent.

Proper and sufficient motivation and the presentation of suitable stimulating situations — he will learn whether he puts the matter in these terms or not — elicit the desired response. The successful school superintendent will appreciate the importance of avoiding the arousal of hostile emotion, of appealing to the existing interests of a person with whom he has to deal, and of carefully cultivating helpful attitudes in those with whom he must work and who must work with him.

The moot question of co-operation might be brought up here. Genuine co-operation is not one-sided. Nor is loyalty. The effective school executive must not only expect co-operation from his staff; he must make it possible in the first place, and he must lend it himself. Co-operation does not primarily mean taking direction; it means working together for a common end. The school superintendent's loyalty is to the community but also to the people who work with him. If he is autocratic or arbitrary, loyalty is forfeited all around. Perhaps one of the most important conditions to effective co-operation lies in certain traits of decision. As executive head he will be responsible for reaching correct decisions on the basis of mature consideration. He ought not then to change the course laid down without weighty reasons. To do so is to involve everyone concerned in waste motion, to upset those of one's assistants and co-workers who are interested in genuine accomplishment, and if the fault is repeated to lose prestige in their eyes and to wind up finally with the demoralization of one's whole staff.

In his capacity as employing officer, finally, the school superintendent must consider further the important factors in performance of aptitude and learning. In considering these he will have some technical assistance perhaps and certainly the prospective teacher's or principal's previous record to assist him. In this connection he will not fail to size up the total personality of the individual concerned. Such judgments will make an important contribution to his prediction and control of future performance.

Whose Responsibility is High-School Athletics?

J. C. Mitchell[1]

In the administration of secondary schools significant principles and procedures have been developed and generally accepted in recent years. One of the trends seems to be toward the location of responsibility for some of the major functions of that rapidly growing and therefore rapidly changing enterprise generally known as the high school. So complex has become the organization, so vital and important have the relationships developed, the fixing of responsibility in this field as the years passed became a necessity. One after another, various activities of these schools have been allocated and in each instance has been placed in the hands of those with authority to act.

Athletics in secondary schools throughout the nation has grown into one of the major activities of these institutions. There is scarcely a high school in any state of the union in which interest in sports does not abound. In the direction and control of athletics there appears to be wide divergence. The inquiry, then, as to whose responsibility is athletics seems to be a pertinent one.

A Responsibility of the School

In general, athletics may be regarded as a responsibility of the school. Even casual students of secondary education during recent years have marked its growth into a prominent place in the training of youth. It appears clear that the recent broadening function of the school has made it necessary that athletics be included among the recognized activities therein.

It has progressed so far during a comparatively brief period, that in it now may easily be found a challenging mobilization of many of the emotional resources of the student group. Whether we like it or not, the facts appear to show plainly that athletics have moved up in many quarters to a place of almost equal importance with that accorded academic instruction.

The reasons for this are not difficult to find. There has come a change in the objectives of education. A new definition has been sought for this product of a modern democracy. A radically different philosophy from that which formerly obtained is now taking form in this field. Secondary education is fast becoming a social enterprise. The thinking of the student body continues to reflect its own interests, but the center of these has shifted. In almost any group of high-school boys and girls, athletics consumes a large part of the conversation. Plainly their imagination has been captured by this activity which has entered so largely into their thinking.

On the gridiron, the hardwood floor, the tennis court, or on the side lines is a wholehearted commitment, a spontaneous enthusiasm, a tie-up with valuable emotional experiences not easy to attain in the so-called academic work. This activity which is within is an integral part of the student life, and therefore of the school itself, and thus by virtue of this, should become one of its responsibilities which can neither be neglected nor avoided. To deny this potent factor in the school life of youth that recognition and thoughtful care to which it is entitled by every consideration of value and permanence, is to cut off from our secondary institutions, one of their greatest opportunities to serve the needs of our future citizens during their most critical years.

An Adequate Athletic Program

The responsibility of the school for an adequate and satisfying athletic program should be coextensive with that, which from the beginning, it has assumed over its academic work. The nature of athletics seems to make it necessary that the school shall exercise the most definite jurisdiction over it. On the other hand, when this phase of the matter is considered, there are those who endeavor to draw a distinct dividing line between the value of training on the secondary level through the use of an academic curriculum, and that which comes through extracurricular activities. There should be no conflict on this score. No one denies to academic training its values. But there are many who affirm with vigor and confidence that extracurricular activities, of which athletics is a part, are important and essential agencies in the education of the youth of today for tomorrow's exacting relationship, and as such, a definite place should be assigned them in our modern educational life.

By and Within the School

We cannot isolate these two fields. To attempt it is futile. They have become co-ordinate. Each is the complement of the other. The experiences of a host of students, teachers, and administrators, the accumulation of so much valid information, and the outcomes indicated by modern-day trends all seem to emphasize and establish this point of view. An acceptance of this working philosophy means the bringing into the school alongside the formal academic relationship those more or less informal activities such as athletics, and the welding of them into an integrated plan over which secondary education may exercise that care and consideration for so many years accorded a more restricted and more formal program.

Athletics must be handled not only by the school but from within the school. Here policies

[1]Superintendent of Schools, Murfreesboro, Tennessee.

must be formulated and principles applied which will undergird and sustain the program as it develops through the year. Here the entire management and control must be lodged. Grave consequences in practically every case follow the intrusion of dominant outside influences in the affairs of this important activity. The effectiveness of its work, the direction of its course into productive and worth-while outcomes are dependent to a large degree upon the constructive forces which operate from within. These send their roots down to the very bottom of student life and help to shape and fashion its destiny. This makes entirely unnecessary the vicious practice in some quarters of the assumption of control, either wholly or in part by organizations outside this local unit, and insures a sane policy of guidance which preserves for all concerned opportunities for the development of the highest types of sportsmanship and honor.

The principal is the recognized head of the school. He is charged by law and precedent with its administration. He is held responsible for its efficiency and for the quality of its product. To him the public looks for the formulation of its policies and for the direction of its administrative procedures. He is regarded as the supervisor and director of the work of his school. His supervisory duties are expected to extend to all educational activities within it. These include both curricular and extracurricular agencies. Under his guidance and direction his teachers, supervisors, and coaches labor. To him they look for leadership. As principal, his authority extends to each and every department in which they serve. These relationships have been wisely agreed upon by the leaders of the profession following years of experimentation and change, and have been accepted in general by the public. Thus the office of principal has slowly evolved from those changing demands of modern life upon the schools everywhere. The principles that have been adopted for the head of the organization, and the functions of his office, which have become generally accepted make clear the fact that the control and administration of athletics must head up in that one who has been charged with the jurisdiction over each and every part of the school.

The Principal the Ultimate Authority

With this in mind, it is apparent that in the principal alone is found the ultimate power to prevent athletics from getting beyond control. The spirit of deception is in the air. Only in his office and among records to which he has access the truth regarding the eligibility of players, that most prolific cause of trouble, can be determined with any degree of accuracy. He is in position with facts at his finger tips to meet this issue squarely. He can thus face, clear-eyed and unafraid, the crooked coach, the tramp athlete, and the weak or dishonest parent who would seek for his athletic son favors, which under the rules of the game and the laws of the association he is not entitled. The appeal of athletic competition is most engaging and full of transforming power for good, but must be directed or curbed by a steady hand within the school, lest it consume many of the other worth-while impulses of the student body. Here the principal, as no other, may capitalize this dynamic force in the life of youth, protect it from those vicious influences that attack on every side, and make it a dominant factor in building a character-forming program among his boys and girls.

Much of the detail work connected with athletics the wise principal can and will delegate to others in his official family. Instead of lessening his responsibilities if he keeps in constant touch, this will but add to them. He may, for instance, delegate to his coach, his assistant principal, or some interested member of his teaching force the duty of making a tentative schedule. But this, before it becomes effective, must come to his desk for modification or approval. He may turn over to his commercial teacher the handling of the receipts from games, the keeping of the books, and the auditing of the bills and accounts, but the financial responsibility is his, and before his observant eye must pass every requisition for purchase and every proposal for expenditure, before bills are made or checks are issued. To committees from the faculty may be assigned the compilation of the data required for determining the eligibility of players, but in the last analysis, it is the principal's responsibility to vouch for the accuracy of this record which in so many ways becomes a commitment of the school to every competing institution.

In the last analysis, each and every phase of athletic responsibility should find its way back to the principal's desk. Failure to recognize this principle all too often has brought naught save worry and trouble. However, devotion to the higher ends of athletics, courage in meeting situations, and a faithful adherence to the simple requirements of a sane athletic policy for his school bear rich compensations to the alert principal, even though at times his sturdy soul may be tried as by fire.

The Off-Campus Agencies

The necessity for the assumption of responsibility for athletics by the principal is emphasized by off-campus agencies which, in practically every community, seem to desire a voice in the administration and control of one or more phases of athletics in the local secondary school.

First among these may be mentioned the alumni who, all too often, are fired by what appears to be a consuming desire to do something for the old school. Entirely too frequently their zeal in this is not fed by a patriotic love for their Alma Mater but by an inflated selfish desire for a winning team. Their expression of devotion so many times is measured by the number of games won during the season, and the efficiency of the school for the present is judged by the results on the scoreboard. It is not unusual for their voices to become strangely silent in behalf of their school after the close of the season, to become articulate again only when another is about to open.

The co-operation of Rotary, Kiwanis, and other service clubs is invaluable. They represent the professional and business life of the community and are usually eager and willing to assist in furthering the interests of athletics in their local high schools. The same is true of chamber of commerce, boards of trade, and in some instances among benevolent and fraternal orders. Many are the times they have assisted in selling season tickets by the hundreds, in providing suitable fields and stadiums, in sponsoring advertising features, and in recognizing and honoring players, coaches, and school officials on account of outstanding services rendered during the season.

The wide-awake principal loses no opportunity through his contacts with these organizations to tie up their interests, and to capitalize the opportunities thus presented by directing the efforts of their members into worthwhile channels. Without his wise leadership, his steadying hand at the helm, there is always present the danger that their promotion of athletics may go wide of the mark. Overenthusiastic citizens found in every club, always with an eye to the main chance, have a tendency to make the accomplishment of a team a means of advertising the town. They are likely to see in it an opportunity to enkindle their community patriotism, and in so doing put too great an emphasis on winning. These zealous club members, armed with a righteous desire to serve their communities, succeed at times in swelling the attendance at games, often at the expense of some of the finer outcomes of athletics. And in so doing they have made it difficult for school authorities to keep it in bounds, and to prevent those days on which important games are played from becoming a kind of Roman holiday for town and county.

The Value of Sports Writers

The sports writers, valuable contributors to the success of athletics, often need to be interpreted to players, many of whom are too easily flattered by complimentary notices, and just as easily discouraged by adverse criticism. All too frequently on the sport page, far beyond the bounds of necessity or reason, are played up the efforts of the boy who made the winning touchdown in a close and hard-fought game. Ever and anon sports writers publish column after column of sidelights on the games, the team, the coach, much of which is beside the point. The net result of a good deal of this is to warp the amateur spirit, to establish a false notion in the public mind concerning interschool contests, and at times to breed unrest and distrust among players.

In too many cases, sports writers are guided by the requirements of the papers for which they supply copy. Many times they themselves are not in hearty sympathy with the forces that are now at work to elevate athletics in the high school. Often they write solely from the sports angle. Frankly, there is a strong suspicion that some of these know no other angle, and that the sports writer shows at times, a complete lack of appreciation and understanding of the ends which the secondary schools are endeavoring to reach through their athletic programs.

A survey of the sports page of any daily paper through any season shows clearly that their major emphasis is on winning teams, championships, and the capitalizing of individual endeavor on the part of the player, especially of one who may be recruited later for the freshman college team. The cultivation of a close acquaintance with the editor of the local papers by the principal, the official head of the school, is a wise and prudent step. This puts him in position to get his plans and purposes before the editor and to enlist his interest as a citizen in helping to develop these to fruition. Principals have found it of great assistance to see that the coach keep close to the sports writers, and throughout the season seek as his representative and that of the school, to interpret to them much of what is going on behind the scenes.

The High School Reflects Public Ambition

Again and again it has been said that the high school belongs to the people and as such

THE SCHOOL-BOARD MEMBER

The organization and administration of the public-school system is a governmental function of the state. Although supervision of the public schools lies with the superintendent of public instruction, the legislature has delegated the duties of administration of the public school to the officers of the individual school districts.

The school officer has a twofold duty: he acts as the agent of the state as well as the representative in educational policies of the people within the district. The specific duties, powers, and responsibilities of the school officer are based on the school law as determined by the legislature. — Dr. Eugene B. Elliott, State Superintendent, Michigan.

it reflects their wishes, desires, and ambitions. This is doubtless true, but there come times when it seems it must be protected from its so-called friends. In interscholastic contests the emotional resources of community groups are often mobilized. These grow to white heat in a zeal to win. The game is taken out of its setting as an interschool affair and becomes an intercommunity affair. The contest is no longer a game with its attendant joys and recreations and good sportsmanship but is a contest between two communities. Members of each express in voluble terms their faith in the success of their respective teams, and partisan enthusiasm overshadows the relationship of the schools involved.

While schools belong to the public, their management must be taken care of by those selected for this purpose. Whatever relation the public bears to the school during the term must come through those chosen to operate them. The services which athletics at its best renders the school, and incidentally the community, precludes the use of out-of-school agencies which an unwisely directed public sets up to assist the school. Some of these may be good in themselves but there are many entangling alliances that linger just around the corner. Those who have had to deal with these know that many dangerous pitfalls lie skillfully hidden by meddlesome hands into which the athletics of a school may be intrigued.

The only safe plan good judgment and prudence seem to indicate, is to retain the management where it rightfully belongs; that is, in the hands of the responsible head of the school. If the community finds it necessary to supplement his efforts from without, the assumption is plain that a more capable leader is needed. It is futile to argue that if these agencies already referred to are given some concessions, larger sums of money may be secured for equipment, greater interest may be aroused in attending the games, and more favorable contacts may be established and maintained with the community. These results, no doubt, do follow in some cases, but even a casual knowledge of circumstances is all that is necessary to show the damaging results which in practically every case come therefrom.

Outside Expert Knowledge

In small towns the typical barber-shop, the garage, or the drug-store group, always so full of expert knowledge of the game, and equally as expert knowledge of proper procedures, exert a powerful influence in the control of athletics in the high school. They are the supreme court. In their wisdom they decide which men are to be sought out during the summer months as likely candidates for the squad with the proper persuasion, which schools shall be included in the schedule and which should be dropped, which men are eligible or can with a little trouble be made eligible, and which men play best the various positions. Their advice is freely offered the coach. Their decisions they personally impart to the players. Far too often their wishes reach the ears of the principal through the kindly offices of their faithful ambassadors. Cases are on record where they have had considerable weight with the school board in the firing of a coach after an unsuccessful season, and in the selection of his successor. Far too often this group has brought to bear on school officials influence to cause a change of principals in the hope that a more liberal policy in handling athletics may be adopted by the new man. And cases are on record where they have nominated both the principal and the coach for the coming year.

These cases and many others that are available, chosen from larger communities, emphasize and enforce the idea that a school which would carry a sound athletic program cannot afford to make any concession, nor to give ear to any out-of-school group which seeks to shape its policy or to modify its course.

How far shall the principal's responsibility extend? As already brought out in this article, this should cover every relation which athletics bears within the school, and all possible contacts outside the school. Although it is best to delegate quite a bit of authority to others, the ultimate responsibility remains with the principal.

His responsibility clearly goes into the field of protection and health. To see that the team is supplied with adequate equipment both as a means of enabling it to play the game well, and to prevent as far as possible injuries during the playing period, is within his province. The practice of giving each participant careful physical examinations by a competent physician to determine his fitness to play, and to require that these be repeated at stated intervals during the season, is well worth the consideration of all principals. The securing of licensed busses which give insurance protection to players to carry teams to and from games, instead of using private cars, is commending itself to school administrators everywhere.

While the considerate principal concerns himself to see that his players are given every care to prevent injuries, neither he nor the school he represents can afford to assume responsibility in case of sickness or accident. To meet this charge is clearly the obligation of the parent or guardian. Purchance some day in the not too far future, insurance companies will work out a satisfactory policy to cover accidents and sickness of players at not too great expense.

In conclusion, it may be stated that in the judgment of the writer, the responsibility for secondary-school athletics without question should be vested in the principal, and that he should be held responsible not only for those sports which cover the field of interschool contests, but that it should extend over every phase of athletics within the school, until some form of this activity may be made available to every pupil enrolled and not to a favored few.

The *Talking Picture* in Education[1]

Alexander J. Stoddard[2]

Teaching and learning are very old processes. They are basic to human progress. Ever since the dawn of civilization, man has been attempting to discover or devise more effective means and methods of acquiring and transmitting knowledge and skills. The development of language from its first crude oral and sign stage has been so long a process, paralleling the growth of both the individual and of society.

Sometime long ago man's desires and activities exceeded the slow and costly process of person to person communication. He demanded some method of transmitting his thoughts to those who could not see or hear him talk directly. He learned to draw and to write, not in a day, but through ages of struggle. Then there came another time when the demands of progress burst the bonds imposed by slow and costly means of transmitting thought. The art of printing was developed, representing an advance of thousands of years.

It is true that man speaks in various languages. Along with drawing and writing and printing there was developed dancing, music, architecture, painting, drama, and other forms of expression. The problem was to find some means or method or process that would make possible the transfer of complete concepts and meanings. But this ideal never could be attained. There were always limitations of one kind or another.

For ages, rivers, mountains, deserts, and oceans were barriers behind which tribes and nations entrenched themselves. But gradually man bridged the rivers, tunneled the mountains, built roads over the deserts, and crossed the oceans. But there were other barriers to progress far more difficult to overcome. They were the limitations to learning. Time, space, distance, and size were barriers behind which ignorance entrenched itself. Things were too small or too distant to be seen; motion was too slow or too fast to be caught by the eye; sound was too low or too high to be heard. The human senses covered a relatively small range and vast worlds of knowledge were unavailable. Then came the telescope and the microscope, expanding our horizons into the stars and the atoms; motion photography enable the eye to see the movement of the seemingly static and to watch the course of lightning; electricity pushed back the frontiers of hearing and made it possible for us to talk round the world and to hear vibrations in the air far below and above the range of the human ear.

The Sound Picture and Learning

In this refinement of the process of communicating thought it was necessary to expand the means of recording concepts in order to multiply the number of learners from a single teacher. Thus books came through printing; pictures came through the camera; and the record of sound came with the phonograph. The motion picture represented a long step forward because it made possible the presentation of the continuity of processes and events, and the sequence of relationships.

But the sound picture represented the greatest step forward in this long conquest of the limitations to learning. It brought a nearer approach to reality in the transmission of concepts by combining an appeal simultaneously to the senses of both sight and hearing. Even more important, from the standpoint of teaching and learning, it made possible the accurate and efficient integration of the voice of interpretation with the elements of the pictures. Both phases of the true teaching situation were included in a recorded form, the illustration and the description were combined in one related process. It is one thing to see a plant grow; it is vastly more important from the standpoint of learning to watch it grow while a master teacher interprets and explains the significance of the processes of growth as they are witnessed. Dr. Jesse H. Newlon, of Teachers College, Columbia University, commented on this fact by saying,[3]

> In our complex society, the school faces no more difficult problem than that of making available to the learner the maximum of first-hand experience. We are compelled to learn about things rather than experience them directly. The educator is on the lookout for every medium that will help to introduce more of reality into learning situations. It is in the solution of this problem that the sound picture is making an invaluable contribution to education. The educational sound picture is a marvelous extension of the eye and the ear.

[1]Address given before the Tenth Anniversary Celebration of the American Association for Adult Education, New York City, May 20, 1936.

[2]Superintendent of Schools, Providence, Rhode Island.

[3]*International Review of Educational Cinematography*, January, 1934, page 8.

The end of this long struggle to overcome the limitations to learning has not been reached. However, the creation of language, the discovery of the art of printing, the adaptation of electricity to the transmission of sound, and the development of the talking picture represent vast stages in the sweep of civilization. It is impossible for anyone to predict the effect that the talking picture may have on the process of education. Already its influence in the field of entertainment, so closely allied to that of education in so many respects, has profoundly affected, not to say revolutionized, the thought and customs of our day. It was a realization of this fact that caused Mussolini to exclaim,[4]

> There are present-day forms of life and activity which the press ought to follow closely, forms that once did not exist, but now concern vast sections of society. The cinema is one of these forms, and interests millions of persons of every age and of both sexes.

Progress in Educational Adaptation

The adaptation of this new medium of teaching and learning to the formal processes of education will require extensive experimentation and study, both in respect to the production of the picture materials themselves and their utilization in teaching. However, much progress has already been made in both fields. There are now available a large number of films prepared especially for use in the schools and colleges, and in many communities there have been conducted careful studies of the most effective methods of integrating the use of talking pictures in the regular educational processes. The superior effectiveness of the talking picture as an aid to teaching has been demonstrated in several experiments and will be assumed in the discussion to follow. President Robert M. Hutchins, of Chicago University, speaking of this new tool for effective education said,[5]

> Talking motion pictures are being developed at the University of Chicago as an integral part of its new educational plan. We believe that talking films properly integrated with printed instructional material will contribute greatly to the effectiveness of our new general courses for freshmen and sophomores. We believe that the teacher will find this new, dynamic medium of expression an authentic aid in his work and that the student will acquire a clearer and more lasting understanding of scientific processes when they are vitalized by scene and sound.

It should be made clear that the educational talking picture, if it is to meet the requirement as an aid to formal teaching and have a place in the methods and procedures of the school and classroom, must be prepared specially for the purpose. That is, it must recognize the laws of learning, meet the requirements of the curriculum, and be in accord with the accepted philosophy of education of the schools it is to serve. It is true that the talking picture may shift the emphasis on certain of the laws of learning, as for instance the law of repetition; also, it may make possible a new type and extent of curriculum materials impossible under the verbal limitations of learning; and finally, it may be able to give more effectiveness to the philosophy that education is life, because of the possibility of bringing greater reality into much of learning. It is evident that the talking picture to be used in education is different from the kind prepared for entertainment purposes. The latter may have high or low incidental educational value, but the former must be planned deliberately as educational. That objective cannot be left to chance.

The point that should be made about educational talking pictures, as contrasted with those designed for entertainment purposes, is that the former should be a part of and not an addition to the regular curriculum of the schools. Moreover, such films should be integrated directly with the objectives of education and contribute definitely to their attainment. Fortunately, most of the educational sound films produced thus far have been the result of the following procedure: (1) extensive research as to curriculum needs in particular subject-matter fields to determine where talking pictures would be needed most and where they would make a unique contribution; (2) the construction of units of instruction to include the objectives and curriculum materials essential in these special areas; (3) the isolation in a continuity form of those phases of the unit of instruction that most suitably and efficiently could be presented by the sound film; and (4) the preparation of the educational talking picture based on the continuity.

Problems to be Solved

It should be added that this procedure involves many other types of secondary investigation and study. It must be decided whether a particular concept is to be presented by regular photography and description or whether various forms of cartooning, with directing devices, are to be used; does the subject require time-lapse or slow-motion photography, close-up or distant views; what illustrative materials are best suited to the particular subject at hand; when and in what form should montage be employed; how many major and minor concepts can be included in one reel; how can the film materials be adapted to the particular grade levels to be served. These are illustrative of the many problems that must be solved for every picture to be made. Possibly one of the greatest challenges is to make the picture dramatic enough to be interesting and yet not so entertaining as to submerge the primary objectives to be attained.

It has been indicated that the educational talking picture is prepared as a part of the unit of instruction and that it is the most effective when used as an integral part thereof. In other words, the picture is not complete in itself. It is to be used in connection with other related materials. There should be very definite preparation for the presentation of the picture and a follow-up to determine remedial measures to be taken. Thus it is to be used as any other teaching process. In fact, the same picture may be used several times in teaching a certain unit. It is essential to remember that it is a part of a process and not the process itself. Some have thought that the use of the talking picture might be substituted for the teacher. Not so. The teacher is always more important and necessary as aids to instruction are devised that make teaching more efficient and effective.

No one can foretell fully either the extent or the nature of the uses to which the educational talking picture may be adjusted as time goes on. There is some evidence that it may cause a rethinking of the whole problem of class size in the schools. Experimentation indicates that there are phases of subject matter which can be presented to large groups, three or four times the usual class size, as effectively through the talking pictures as to the small groups in the usual manner. If this be true, it may be that the practice of uniform class size for all subjects may be abandoned in favor of a plan of individual or small group instruction directly by the teacher in some areas, and in other areas the instruction of large groups through the use of the talking picture by the teacher. Thus a much more efficient teaching procedure, fitted to the varying needs of pupils and types of curriculum materials, would be possible. In such case, the sizes of classrooms would vary and the school auditorium would be used to a much greater extent than now.

Substitute or Supplement to Books?

Another possible phase of the utilization of the talking picture in education, that is little realized as yet, is its possible substitution partially for the printed medium of learning. It may be that it will open up avenues for individuals of low ability impossible through reading. On the other hand, it may also make possible the presentation of concepts of broad sweep and significance to those of high ability without verbal and printed limitations. Some idea of this latter possibility is seen in the effectiveness with which the stories of some of our great books have been presented in talking pictures. We spend much time teaching little children how to read, postponing learning for years until this tool is mastered. This ought not to be necessary. Why not begin learning at once through the talking picture and let it proceed along with acquiring the ability to read? These are but a few of the adjustments that may come through this new device.

The point has been made before in this discussion that the talking picture adds reality to the teaching process; that is, it extends the range of the concept that can be presented by the single picture or drawing or description, whether oral or written, or of the motion picture without sound. But it is not only the possibility of vitalizing our present curriculum that should challenge us. It is the probability of opening up new areas of learning that should concern us even more. That is, we may have one type of curriculum with certain limitations to learning and quite a different one when those limitations have been removed. It is important not only that we may be able to teach more rapidly and effectively through this new means but also that we may be able to teach that which has been taught inadequately or not at all. Thus it may well be that the talking picture will enlarge as well as enrich the curriculum.

Specific reference has not been made thus far to the implications of the educational talking picture for adult education. Yet all that has been said applies with equal or greater force in this field. Many of the pictures made for school and college levels can be used with real effectiveness on the adult level, because the range of the educational potential of talking pictures is much wider than that of printed materials. It may be necessary to change the interpretative presentation but the picture materials themselves usually have a wider breadth of appeal.

Adult Learning from Pictures

However, despite the fact that many pictures can be used both in the school and the adult levels, it is also true that the whole field of educational talking pictures, specially prepared for adults, needs much further study and research. Some means must be developed of giving, in the time available, a broader preparation for adult living. What is needed is sufficient education to sit on "the bleachers of life," so to speak, and to be able to understand the game and claim what it may include for the enrichment of life for each individual. No school and college training can prepare one fully for all of life. Some method must be found to continue our training as life progresses. This is especially true in such fields as the social sciences.

The average adult finds life perplexing because of its almost infinite demands upon the individual. There is so much that one needs to know in order to live abundantly. But there is not time to read all that we should learn. But if there were no limitation as to time, there would still be much that one could not learn through reading alone because of the limitation of that medium of expression. The educational

(Concluded on Page 71)

[4] "The Educational Talking Picture," *School Executives Magazine*, February, 1934.

[5] *A New Tool for Effective Education.*

Some *Issues Involved* in the *Planning* of a Guidance Program

John P. Treacy[1]

An examination of the literature on guidance programs impresses one with the diversity of objectives, organization, and techniques found among cities. Since administrators consciously or unconsciously reflect in their programs their underlying theories of guidance and of administration, one cannot help but conclude that there are some basic issues upon which there are wide differences of opinion. The purpose of this article is to relate some of the divergencies in guidance programs to possible differences in interpretation of basic issues. Many of the issues which follow are interrelated; the issues of amount to be spent on guidance and the size of staff illustrate this overlapping. No attempt has been made to point out all of these interrelationships, or to keep the issues mutually exclusive.

What is guidance? Naturally the nature of a guidance program is conditioned by the interpretation given to the word *guidance*. To some, guidance connotes vocational guidance, in the narrow sense or in the broader sense. To others, the word is practically synonymous with "attempts toward the individualization of education."[2] To still others, guidance and education are practically synonymous. The following excerpts illustrate these and other interpretations of this apparently elastic word:

> Vocational guidance is the process of assisting the individual to choose an occupation, prepare for it, enter upon and progress in it. As preparation for an occupation involves decisions in the choice of studies, choice of curriculums, and the choice of schools and colleges, it becomes evident that vocational guidance cannot be separated from educational guidance.[3]

* * *

> Guidance is neither adjusting nor suggesting, neither conditioning nor controlling, neither directing nor taking responsibility for anybody. . . . Educate the oncoming generation we must, *and a true education, as we shall try to show, means guidance.* By the process of guidance, we put the responsibility where it belongs, on the individual being guided, as fast as it can be done without running the risk of abandoning him to crass ignorance and to the misguidance of active influences ready at all times to do him harm.[4]

* * *

> To those who must have a definition, the one given by Dr. John Brewer of Harvard University is about the best one known to the writer, "Help the child help himself." In what, you say? In whatever field a need is apparent. Is there a need for information about occupations, need for a job, need for the right use of leisure time, need for information about a college, a club, need for help in a problem of morals or of health? Any help of this kind is Guidance and worthy of attention.[5]

* * *

> The broadly stated aim of guidance is that of helping all individuals at appropriate times to plan for, select training activities for, and enter vocational, social, and recreational activities in which they will be successful and happy and of service to society.[6]

* * *

> In some schools guidance probably means whatever principal or teachers do for pupils in the way of personal counsel or advice. In other schools guidance activities are roughly differentiated into types, such as educational, personal, vocational, social, moral, and the like. Still other schools analyze guidance into specific activities, such as providing assistance to pupils in choosing curriculums, overcoming deficiencies, developing special talents, and cultivating intellectual interests, or imparting occupational information, advising regarding the choice of an occupation, assisting in securing employment, helping in the choice of a college, and giving supervisory oversight to an individual after employment.[7]

* * *

> There are two main phases of the concept of guidance accepted for this book. These are (1) the *distributive* and (2) the *adjustive* phases. In discharging the former phase we aim to (1) *distribute youth as effectively as possible to educational and vocational opportunities,* that is, to subjects (or courses), curricula, extracurricular activities (which may be thought of as expansions of the curriculum), schools, higher institutions, and vocations. In the second, we (2) *help the individual to make the optional adjustment to educational and vocational situations.*[8]

We should expect differences in guidance programs when there are so many meanings associated with guidance. Fortunately, there seems to be a trend toward delimiting the word, somewhat as Koos and Kefauver have done in the definition above. Probably the first step in the planning of a guidance program should be to define and delimit the interpretation to be given to the word *guidance*.

The School's Function and Guidance

What is the function of the school? According to a traditional point of view the center of gravity in education should be subject matter. If a student can adjust himself to the prescribed subject matter, he is welcome to the facilities of the school; if he cannot, he may drop out of school and shift for himself in the occupational world. The school should not take the responsibility for adjusting the school to the individual, or for helping the individual find himself in the complex life outside of the school. These adjustments are the responsibility of the child himself, or of other educational institutions such as the home and industry.[9]

According to a newer point of view the school must be adjusted to the needs of students, and is a residual institution which "must assume responsibility for every phase of education not otherwise provided for."[10] This interpretation of the school's function is largely responsible for guidance activities in schools at the present time. The failure of *extra-school* agencies to provide adequate guidance for young people has been obvious to educators. Thus, the provisions for guidance *in* the schools.

These divergent points of view probably exist to a degree at the present time, and help to explain the elaborate programs of guidance in some schools, and the meager provisions in others.

Who should participate in guidance activities? Reavis,[11] on the bases of his own research and that of others (Woellner, Koos, and Kefauver) reports the following functionaries as having responsibilities for guidance in the secondary schools of the United States: principals; assistant principals; deans of boys; deans of girls; homeroom advisers; teachers; counselors; visiting teachers; and, guidance committees. It may be assumed that the schools made use of individuals outside of the school, such as representatives of the various occupations. As might be expected, principals were found to be the main guidance functionaries in the smaller schools. In the larger schools homeroom teachers, deans of girls, and deans of boys seemed to be performing more guidance work than the principals, while counselors were mentioned with about the same frequency.

On the score card for evaluating guidance plans prepared under the direction of Proctor, 90 out of a total of 1,000 points are given to the size and efficiency of the staff. The explanatory notes contain the statement that:

> For a counseling staff of satisfactory size, each member should be assigned a group of not more than 90 pupils. On this basis, a 40-minute period would mean that the groups assigned should not exceed 60 in number; a 30-minute period not more than 45. A staff member assigned a group of 225 pupils should be allowed two and one-half hours per day for guidance consultation.
>
> Staff time should be reserved strictly for guidance purposes with definite groups of children. Clerical work, such as completing records or forms, should not be done during this time. Schools using some basis of organization other than the one indicated should be given a prorated score.
>
> Efficiency is indicated by definite lines of authority, no overlapping of functions, and delegation of distinct tasks. . . .[12]

There is little evidence that these standards are being met very generally at the present time.

Training of Guidance Workers

How much specialized training should be required of guidance workers? The number of specially trained guidance workers available in most cities at the time guidance was introduced was very small. Consequently, many who have no specific training in guidance are now engaged in guidance work. Kitson questions the bases commonly used in selecting these workers:

> A good many superintendents of schools who want to have vocational guidance done think that anyone can do it providing he have a kind heart and an interest in young people, and so they select some superannuated teacher of Latin; or some broken-down teacher of English who, after correcting themes for 20 years, is tired; or someone who merely "has a way with him"; and ask him or her to give vocational guidance. As a result, teachers all over the country are trying to do something they don't know how to do.
>
> Such practice cannot give good results, for vocational guidance is a specialized field. It is a profession in itself. And anyone who engages in it should be trained just as specifically as one who engages in the practice of medicine or engineering or any other profession.[13]

On the other hand, New York prescribes rather definitely the courses for the special certificates which are required of those who devote a significant amount of time to guidance.[14]

What types of guidance activities should be carried on? Once the meaning and functions of guidance are agreed upon, there must be a plan of activities through which the objectives are to be obtained. Reavis makes the following analysis of activities:

1. Instructing pupils regarding occupations (in courses or incidentally).
2. Carrying on occupational research.
3. Rendering placement service.
4. Making follow-up investigations.
5. Effecting adjustments between employees and employer.

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[1]Professor of Education, Marquette University, Milwaukee, Wisconsin.

[2]Kitson, Harry D., "Getting Rid of a Piece of Educational Rubbish," *Teachers College Record,* October, 1934.

[3]"Principles and Practice of Vocational Guidance," The National Vocational Guidance Association, Bureau of Vocational Guidance, Harvard University, Cambridge, Mass.

[4]Brewer, John M., *Education as Guidance,* pp. 2–3. Macmillan, 1932. (Italics are the writer's.)

[5]Harold, Thomas, "Kiwanis International and Vocational Guidance," *Vocational Guidance Magazine,* 8:271, March, 1930.

[6]"A Comprehensive Guidance Program," *Occupations,* 12: 9–14, March, 1934.

[7]Reavis, William C., *Program of Guidance,* National Survey of Secondary Education, Bulletin 1932, No. 17, Monograph No. 14. Government Printing Office, Washington, D. C.

[8]Koos, Leonard V., and Kefauver, Grayson N., *Guidance in Secondary Schools,* p. 15. Macmillan Company, 1932.

[9]Cubberley, Ellwood P., *Public Education in the United States,* Chapter XV. Houghton Mifflin Co., 1934.

[10]Smith, Walter S., *Principles of Educational Sociology,* p. 120. Houghton Mifflin Co., 1928.

[11]Reavis, William C., *op. cit.,* Chapter II.

[12]Proctor, William M., "Evaluating Guidance Activities in High Schools," *Vocational Guidance Magazine,* 9:58–66, November, 1930.

[13]Kitson, Harry D., "What General Education and Specific Training Should the Counselor Have?" *Vocational Guidance Magazine,* 9:341–42, May, 1931.

[14]"Occupations," *The Vocational Guidance Magazine,* 14: 152–53, October, 1935.

6. Visiting homes of pupils.
7. Compiling case histories of pupils.
8. Administering tests to pupils (achievement, intelligence, diagnostic, etc.).
9. Preparing guidance bulletins.
10. Giving information to pupils in groups.
11. Counseling individual pupils.
12. Holding case conferences with groups.
13. Sponsoring pupil activities.
14. Conferring with teachers and sponsors regarding individual pupils.
15. Serving on committees of teachers to develop material.
16. Conducting guidance clinics.
17. Making reports of activities to administrative officers.
18. Miscellaneous activities.[15]

This list of activities suggests the narrower interpretation of guidance. If one accepts a broader interpretation of guidance, comparable to those held by Brewer or Jones, he can imagine a considerable expansion of this list. Whatever the interpretation of guidance, there should be a related program of activities.

What grades should the guidance program include? In its beginnings guidance was identified with the *act* of finding suitable positions for those who were entering employment. Consequently, guidance tended to be identified with the time in a pupil's life when he left school—whenever that was. As the interpretation of vocational guidance expanded, and as other types of guidance (educational, leisure time, etc.) were added to the concept, and as the importance of the genetic point of view in case studies became known, the need for identifying guidance with all grades became evident. The fact still remains that there is a greater need for certain types of guidance in certain grades than in others. What should be the grade focalization of activities for a specific school system? A careful analysis of the local organization, and research on the needs of pupils should help in answering this question.

Centralization and Cost of Programs

To what extent should city guidance programs be centralized? The issue of centralization vs. decentralization is to be met in the field of guidance as it is in other fields of educational organization. There are two main types of city organization. In one type (Boston, Chicago, Cincinnati — 1931) the emphasis is placed on a rather complicated central guidance bureau. The individual schools are instrumentalities for carrying out a rather highly prescribed program, with the help of specialized services offered by the central staff. In a second type of organization (Milwaukee, Providence) there is a less elaborate central guidance bureau, and the individual secondary schools are given much authority and responsibility for their guidance programs. Naturally, the first type of organization requires a much larger central staff for a given school system than does the latter. In 1931, Chicago had a central staff of 31, while Milwaukee had only one full-time person, who acted largely in an advisory and co-ordinating capacity. Conversely, the second form of organization requires more effort on the part of individual schools, from full-time counselors or from teachers who are relieved of part of their teaching duties.

Which is the better type of organization? Local needs may be a factor in answering this question. In any event, the issue must be faced.

To what extent should the guidance program in an individual school be centralized? Issues similar to those mentioned above arise in the organization of a guidance program in an individual school in systems where much leeway is allowed (the second type, above). Should all guidance activities be centered under one or more specialists in guidance? Or, should the emphasis be placed on a plan suggested by the slogan "every teacher a counselor"? In one case there is the danger of "the blind leading the blind"; in the other, the danger of guidance not being integrated with all educational activities. Can a dual system of organization eliminate both of these dangers?

Which is the best type of organization? Again, the local system probably will be a factor in the answer.

How elastic should a guidance plan be? The writer is intimately acquainted with the guidance programs of two high schools in a certain city where the guidance organization is highly decentralized. In both of these schools the homeroom is the central factor in the guidance program. But in one school there is prepared in advance a course of study, which is adhered to rather rigidly. In the other school there is no course of study: problems are discussed as they arise. Which is the better plan of procedure?

How much of the educational budget should be devoted to guidance? The case studies of city programs of guidance reported by Reavis[16] indicate that different bases have been used for computing the cost of guidance. The actual amounts reported vary from 20 cents to $22.22 per pupil. Differences in method of computing costs could hardly account for these differences. Naturally, the answer to this question will greatly influence the answers to other questions raised in this article.

The aim of this article has not been to exhaust all of the issues which must be faced in organizing a guidance program. There are many which have not been included in this analysis, such as the extent to which records should be modified for guidance purposes, the extent to which guidance workers should have executive authority, the place which guidance workers should have in a salary schedule, and so forth. It is hoped that the issues which have been analyzed will be suggestive to those administrators who are organizing guidance programs, and to those who wish to analyze critically their present programs.

[15]Reavis, William C., *op. cit.*, Chapter III.

[16]Reavis, William C., *op. cit.*

Co-operative Buying for Schools

C. P. Young, Ph.D.[1]

At the invitation of the writer, in February, 1927, the superintendents of schools in the San Luis Valley, Colorado, met in Alamosa to observe the instruction and the administration of the Alamosa public schools and to discuss mutual problems. The initial meeting was so successful that more sessions were held, at one of which the writer proposed that school supplies be bought co-operatively. The plan, which was adopted by the five schools represented, for the school year 1927–28, has been operative each year since that date. It was agreed that in order for the purchasing to function smoothly, one superintendent of schools should be chosen to act as secretary of co-operative buying.

Supt. W. M. Akin, of the Sargent Consolidated Schools, Monte Vista, who was unanimously elected to the position, successfully performed his duties until his resignation to go into business. His successor, Supt. H. L. Greear, "inherited" the position of secretary by the unanimous consent of the other superintendents, and has carried on in the same efficient manner. In the co-operative buying for the San Luis Valley in 1935, the following schools and superintendents participated: Sargent consolidated schools, Monte Vista, Supt. H. L. Greear; Saguache County High School and Saguache public schools, Supt. Lyle N. Slonecker; Rio Grande County High School and Monte Vista public schools, Supt. Carl A. Brumfield; La Jara consolidated schools, Supt. L. R. Wren; Del Norte consolidated schools, Supt. Elmer Underwood; Center consolidated schools, Supt. J. R. Little; Blanca public schools, Supt. E. F. Smith; and Alamosa public schools, Supt. G. P. Young.

Rules for Classification

Rules for the classification, forms for orders, specifications for items, and regulations to be followed by firms bidding on the orders have been formulated and changed from time to time as the occasion demanded.

The 1935 rules for superintendents are given below:

1. Keep your supplies in two classes — (1) *Janitor Supplies* and (2) *Flat Paper* and *Miscellaneous Supplies.*
2. Fill out separate order forms for each class.
3. Make twenty copies of each class.
4. List all orders on the approved inclosed order form.
5. Typewrite or mimeograph lists in such a manner that all copies are exactly alike.
6. Leave price columns blank.
7. Include in list heading the classification name (Janitor Supplies, or Flat Paper, and Miscellaneous Supplies) and name and address of your school, but leave blank the space for the bidding company.
8. Be specific in describing the items wanted so the bids may be comparable. Take care in specifying color, size, weight, quality, etc., as far as it is possible to do so.

In 1935 the instructions to bidders were:

1. It is desirable that bids be submitted upon the sheets furnished, or similar sheets. If you have additional or alternate supplies upon which you wish to quote, list them upon separate sheets.
2. Notice will be sent concerning date when bids will be let.
3. Bids may be submitted upon all or any portion of the lists, and the schools will expect to purchase all or any portion of the supplies quoted.
4. It is assumed there will be a carload of janitors' supplies. The carload of goods is to be *packed and marked separately for each purchasing school, invoices mailed directly to these schools, and car shipped f.o.b. Alamosa,* so as to arrive about May 25. The firms or firm which receive the bid for janitors' supplies must provide for distribution of orders after they reach Alamosa.
5. It is assumed there will be less than a carload of other supplies.
6. Shipments of less than a carload will be shipped f.o.b. to the school's closest shipping point.
7. Samples of all paper must be submitted; samples of other supplies may be sent or adequately described in a letter to accompany the bid.
8. Samples should be sent to Dr. G. P. Young, superintendent of schools, Alamosa, Colorado; bids should be submitted to Supt. H. L. Greear, Sargent consolidated schools, Monte Vista, Colorado.
9. A package of paper will consist of 100 sheets; a ream will be considered 500 sheets.
10. The same price as bid, or a flat discount from catalog price, may be offered on all goods purchased later in the year. This may have a bearing in deciding upon the successful bidder.
11. It is requested that articles on which bids are made be indicated as to quality, size, and catalog numbers specified; and that each school be sent a copy of the catalog.

The Matter of Savings

Chief among the values resulting from the plan of co-operative buying is the large saving, running into hundreds of dollars each year, which is effected through buying in quantity and, in the case of janitors' supplies, having the goods shipped in by the carload. Several superintendents have figured that their districts have saved an average of 30 per cent each year. The saving over former years when co-operative buying was not practiced, permits school districts to buy more supplies for the amount of money spent. Schools which have been compelled to curtail expenditures, thereby decreasing the efficiency of their work, may increase the quantity of supplies, without reducing the quality and without expending additional sums.

It is further stipulated, in the rules for bidders, that the same price as bid, or a flat discount from the catalog price, may be offered on all goods

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[1]Superintendent of Schools, Alamosa, Colorado.

Not *Merely a Matter* of Method

New Doctrine for Monroe—XIX

Brooke W. Hills

I

Long ago, Old-Timer, if you have been following these chronicles, you probably reached the conclusion that Monroe is not a soft spot for any school administrator. It wasn't as we have demonstrated. If you have any genuine doubts, we'd be inclined to say you're unusually thick-skinned, or you must be putting in a miserable time yourself. Very possibly, too, in considering Smith B. Hamilton's situation, you have spent a little time speculating what you yourself would do under similar conditions.

What's your own answer to this particular Monroe? Let's check up a bit. Tell us what your solution is — and, maybe, we could make a good guess what kind of schoolman you are. . . .

Without putting ideas into your head, we would suggest that there are three or four methods by which the average man, caught in such a whirlpool, deliberately or otherwise, very often makes his choice. Here they are:

First, there is that superintendent who realizes his difficulty, and who concludes that it is wisest to temporize, in the meantime putting in his best efforts to get another job. He makes the usual gestures, listening more closely to the whispered words of The-Man-on-the-Street than to the stifled shouts of whatever pedagogical conscience he may still have. Often he falls into that category known as a "yes — yes" superintendent; he tries to go along with everyone, and eventually finds that he has promised both ways, and as a consequence can't go along with anyone. Poor fellows, these superintendents, who confuse the term "tact" with the one word which much better describes such temporizings — "cowardice." We submit that a successful superintendent is almost invariably tactful, that the possession of this trait is a prime factor for his success; but tactfulness should not be confused with a willingness to play politics, nor is a tactful superintendent devoid of backbone. No schoolman deliberately seeks trouble; but the successful man in schoolwork is not afraid to face trouble when it *comes* — and come it always does, sooner or later. Rather cynical? Yes, and rather true! Hamilton had found in Monroe schools headed before him by a line of short-term superintendents, a condition reflected in the schools themselves. Not everything here had been built on the sands of a temporizing policy, but there were plenty of leaning towers. . . . The "yes — yes" method, or its twin — the business of throwing up one's hands, saying it can't be done, and hunting for a bombproof shelter? . . . *Not recommended.*

There is another type of superintendent who meets these troublesome situations by getting up on his hind legs, advising his community that on the whole he's glad an inquiry is being made as to who is boss, and that it's about time this question is definitely settled. Often this choice is backed up by long-term contract. If this superintendent is planning to retire at the expiration of his contract, he can probably get away with it, and spend his declining years pleasantly in Florida or California, regaling his grandchildren and anyone else willing to listen, with stories of how he told the town where they got off and made them like it. The first part of his tale may be strictly true, although somewhat embroidered as a rule; the last part is a supposition, the substance of things hoped for. Nine times out of ten this bravo, vulgarly speaking, is merely kidding himself and but few others — "Yes, sir; that's just what I told them. I blammed straight through, and the next time they knew better than to take *me* on." . . . Fiddlesticks, for this species of superintendent. We've met a number of these; we cordially agree that the policy of straightening out school situations by scaring people half to death is impractical, unwise, unlikely, and is *not recommended.* Of course it's been tried; and we can't say positively this method of producing peace and harmony in a community by socking every head with a baseball bat is invariably unsuccessful; but, an awful lot of feather dusters evolved from striding roosters; and when you stop to think about it, there are quite a few successful cemeteries in our country, well populated by drivers who knew they had the right of way and tried to prove it. . . . Blamming straight through? *No; not recommended.*

Which brings up a third method of straightening out a school situation — the plan, it seems to us, that Hamilton was following. Very likely we might call it a way by which school situations automatically straighten themselves.

So what? Well, let's see.

Hamilton was young. He was not afraid; that has been evidenced by his decision to stay in Monroe and face the music provided by Editor Short of the *Item,* by Jackson R. Tyrone, by Janitor Atkins, and the rest of the precious crew. But he was no more a young fool than he was a coward — he had one fundamental idea of the conduct of a good school, did this young gentleman, an idea to which we have alluded.

It may be recalled that, as Hamilton stood in the doorway of his office the first morning of school and watched the pupils practically lock-stepping their way to the auditorium to face him as superintendent of schools and high-school principal, he had ejaculated "What a break!" To him, realizing almost from the first the long, long difficult road ahead, although at the time he could not possibly foresee the obstacles which would be thrown in his way, this chance to take these young people from their treadmill and permit them to assume responsibility for themselves, was nothing more nor less than a providential opportunity. An opportunity, yes; and yet, a way out. Opportunity to test by fair trial his belief in children, its success dependent entirely on his ability to get these boys and girls to do what they should do, not through compulsion but from their own sense of fairness; to secure their co-operation in making this school *their* school and not *his* school; to have them accept him and the faculty as their associates, not their bosses; to create a feeling of individual pride in the school, a pride which might readily become almost a personal issue, a pride in accomplishment and association which would not tolerate anything unworthy of themselves and their fellows.

Let it not be misunderstood that Hamilton set up this idealistic scheme as a method of saving his own skin; it is doubtful if this idea entered his mind, and fortunately so. Unhappy the schoolman who deliberately undertakes to establish this scheme of mutual responsibility as a means of self-preservation; unless this is an expression of his own sincere desire, unless at heart he does believe in these boys and girls, and shows that he is actuated wholly by an implicit belief in the decency and fair play inherent in the normal child, his protestations to the contrary will fall on deaf ears. No one loves a hypocrite! Here was a possible way out for Hamilton, although not chosen for that reason. For, while he rejoiced mightily in this opportunity, never did he lose sight of the fact that this plan was no more on trial than he himself and his own worthiness.

Look it over a bit, you doubting Thomas. Bill Dobson had said, "A good man can make Monroe a good job for himself." The Commissioner had said, "Give them a good school, and the rest will come as sure as there is a sun in the sky." Let him think, then, of the school, rather than himself; let him place its interests first, and confidently await the issue. Treat these young people as he would like to be treated himself; why, confound it all, this was merely a repetition of the Golden Rule, at that! Do it, not because it seemed to be best under the conditions, but because he wouldn't do anything else. In the final analysis this was the one motive which completely actuated Hamilton.

An idealistic, impractical young man? No!

One of the most respected and successful administrators we have known, when asked his recipe for reaching the heights, grinned and replied, "Don't ever let it out, whatever you do; but I put in a lot of time figuring what *I'd* like to do if I were a kid in school, and so I generally manage to go along with the kids; most always I find I can keep a couple of jumps ahead of them without much trouble, and they just naturally pile along after me." Not very highfalutin' language, possibly. But we notice the citizens of his city now call by his name the high school he founded a generation ago; and its several thousand students occasionally glance at his portrait in the hall near the front entrance as they go about their daily business — and their smile answers his.

. . . Years ago, someone — no one ever learned the responsible person — pinned a torn scrap of paper to the wall directly under this portrait. On it was scrawled in a boyish hand,

"Grow old along with me;
The best is yet to be."

It has always seemed to us that one of the finest things this school ever did was to leave that fragment exactly where it was first found; the sentiment was so much like the man himself. . . . But, "building a good school is purely a matter of method," the sophists say.

A matter of method? Hardly.

A school, operated with the fewest possible rules; a school to which

many pupils came because they would rather be there than any other place; a school from which they returned home at night, tired but happy with the consciousness of a decent day's work accomplished; a school where master and student worked side by side with mutual understanding; a school where boys and girls might talk over their problems with their teachers, and feel they were talking with sympathetic and kindly friends; a school where pupil responsibility was permitted and taken for granted; a school, always ambitious, always reaching forward to new horizons beyond . . . this was the school which Hamilton had visioned, this the school he had striven to create in spite of every obstacle placed in his way by those whose whole philosophy was measured by personal or political gain — this is the right way out, difficulties or no difficulties, in Monroe or any other public-school system.

"Give them a good school," the Commissioner had said.

This was just exactly what Hamilton had been doing; exactly, though he realized it but dimly, the one definite way out. Not a matter of method! Rather, a matter of flesh and blood — an overwhelming, passionate desire to give these boys and girls their rightful heritage.

Yes, he had been pressing toward this ideal; long strides had been taken. And yet here was this telegram, the message which had brought him rushing back from the convention. He read it again: "Serious trouble. . . . Benkert advises immediate return." . . . And so the school was but just one more school, and his ideals were but empty mirages.

Here was the station, and Hamilton was home again; and Miss Ross came quickly into the office, followed an instant later by a grave-faced Peter Barron, who closed the door behind him, shutting out a sneering, triumphant Tyrone and his half-heard remark,

"What! Back in town again so soon? Something gone wrong with this new idea of student responsibility?" . . . Well, they could keep him out of the superintendent's office, a little while, at least. . . .

II

Mr. William Esmay, Jr., better known in his family as "Billy," a pet name which he fervently hoped would sometime be shortened to "Bill" . . . evidently had something very much on his mind that afternoon. A surprised mother noted that her son, on his return from school, had hung his coat in the hall closet, rather than dumping it on the davenport, parental rules notwithstanding; and when she saw him a moment later carrying his pile of books to his room instead of tossing them at the nearest unoccupied chair, her interest turned to positive alarm. . . . Mothers are like that!

"Billy!" — this, from the foot of the stairs.

"Bill!" corrected young Mr. Esmay under his breath. More loudly, "Yes, Mother?"

"Billy, are you sick?" Anxiously.

"Me sick?" Voice from the bathroom; her worst fears confirmed by the sound of running water . . . why, the boy is washing his hands before supper! What on earth *is* the matter with him? . . . He *must* be sick. . . .

The elder Esmay, hearing the same unusual noises, and sensing that something very, very loose was going on, dropped his paper and joined the conversation.

"William!" And there was no nonsense in his voice; there seldom is, when a father is a little startled. . . . "William, are you sick?"

"No, sir," as an immediate relief from the heights above. "But I know a coupla guys who are *good* and sick, and I don't mean maybe! Boy! I'd hate to be in *their shoes.*" . . . A plump a moment later, as the junior member of the Esmay establishment again achieved the acrobatic feat of swinging over the bannisters to the floor below by using the newel post on the landing as a swivel, thus escaping the labor of walking down the last five steps, and, incidentally, escaping for the fiftieth time the imminent but wholly delightful possibility of dashing out his brains on the plateglass of the door opposite. "Gosh, Mother, I forgot again; I'll walk down next time. Just see if I don't."

"*What* two guys are good and sick?" inquired his reassured father, rejoicing secretly at the growing strength and control of the slim young figure before him. . . . Fathers are like that; *we* know. . . .

"Aw, those birds who thought they were smart firing rocks at the Deckerville cars after they licked us Monday." Reflectively, "Bet you a hundred dollars they wouldn't have took us, if Jerry Park hadn't got laid off the last quarter for getting four personals. You'd oughta see the big horse he was up against; gosh, was he *big*! . . . Boy, if I was a coupla years older I'd like to take a poke at that baby, myself." . . . Violently, "But not the way those two Monroe guys did; firing rocks, and there were a lot of girls and grown folks in those cars, too. Thought they could get way with it, waiting till the Deckerville bunch was going over the bridge, and not caring a hoot whether they give our school a bad name or not."

"Say, I heard something about that," said the interested Mr. Esmay. "Must have been what Benkert was telling me yesterday; said he had wired Mr. Hamilton to come home from the convention."

"Well, he needn't worry any more about *that,*" observed the young commentor, eyeing with satisfaction the steak his mother had placed on his plate. . . . "You only put one spoonful of gravy on those potatoes."

"What did Mr. Hamilton do to them?" inquired the elder Esmay, the error having been corrected. "Expel the boys?"

"Nope, those fellows didn't have that luck," was the surprising reply. "I bet you a hundred dollars they'd have thought they was getting off lucky if they *had* been fired out. Nope; the school fixed them. Gosh, I'd rather be kicked out a million times than take what those guys got."

"The *school* fixed them?" questioned the astonished parent. "What did they do; take them out and beat them up?"

"Worse than that. And I know, 'cause I was elected to be in on it."

"Billy Esmay," said his irritated father. "Will you kindly get down to brass tacks and tell your mother and me what *did* happen?"

"Gosh, these peas are good; they must be fresh," was the somewhat unsatisfactory reply. "Wait a second." With a gurgle, "I was just going to tell you, if you'd give me a chance."

Following a rather lengthy second, "You see, it was like this. The Deckerville crowd didn't say anything; but we heard about what happened there at the bridge, and the next day in comes Mr. Hamilton all out of breath and looking pretty worried. He goes into his office, and closes his door; and then, in about five minutes, a committee of seniors goes in after him, right past old Jack Tyrone who was hanging around, tickled almost to death and making dirty cracks. Golly, I'd like to fix *him*!"

"Billy!"

"Yes, I would; and so'd the whole school. So these seniors had a talk with Mr. Hamilton, and they asked him if he's willing to let the school go into the auditorium by themselves and no teachers around, and talk over this business, and see what they thought ought to be done about it. Mr. Hamilton says to go ahead. So we do; and boy what a meeting we had. We had kids standing at the doors all the way around, so's old Tyrone couldn't do any snooping and bust things up."

"Billy!"

"Yes, ma'am, that's just what he's a'tried to do; and I bet a hundred dollars if he *had* a' got in, we'd a' had him up in front in a hurry, too, and I don't mean maybe, neither! He ought to get the idea through his head that just because we're only going to school we haven't got any sense and don't want a decent school, and don't need to be bossed all over the map all the while.

"So we had this meeting, and there was a lot of good speeches, and everybody was up on their ear, and the big idea was that we ought to have pride enough in the school and enough school spirit to take care of these two birds ourselves; and the next time anybody wants to get *too* gay, maybe he'll get wise to himself in time. And so the meeting busts up, and the committee goes back and tells Mr. Hamilton what we want to do, and he says O. K., and we do. . . . That's an awful small piece of pie, Mother.

"Well, the school elected another committee, two kids to a room, and I was elected one of them; and so, this morning, just when the clock said ten o'clock, every darned teacher in the school got up from her desk without a word and left her class, and the two kids did the same, and we all piled into the small music room."

"Billy Esmay, do you mean to tell me that every teacher left her room and went off to another part of the building? Why, was it safe to leave those children alone?"

"*Safe?* Huh! Bet you a hundred dollars there was better order around that school for a couple of hours than they ever had in their lives, before. The kids woulda *killed* anybody who started something. Can't you see the dignity of the school was up against it?

"When we had all got in there, the teachers sat in back along with Mr. Hamilton, the committee up in front, and Fred Van Tassel presiding; and he's the most respected boy in school, even if he *isn't* big enough to make the first team, but he's got brains, and I bet a hundred dollars he'll get into West Point in spite of the way old Jack Tyrone talks about him. Nobody said anything while we were waiting. You could a' heard a pin drop, and then we heard those two guys coming down the hall alone, and they were on time, you bet, because about half the football team was up at their houses last night and whispered in their ears what they'd do to them if they didn't show up. The next

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Mobile *Maintenance* of School Busses

George H. Watson, Birmingham, Alabama

A mobile system of maintenance enables the board of education of Jefferson County, Alabama, to keep its fleet of 110 busses in service every day throughout the school year, without ever taking them off the road. Only once a year during vacation are the busses brought into the garage in Birmingham for a general overhauling.

During the school term, mechanics equipped with "shops on wheels" make the rounds of the county, some 1,120 square miles and keep the busses in good condition. Service and repairwork is usually done at the schools while the pupils are in classes. The jobs are done so well that it is rare indeed that a bus loses a trip because of road failure. It is found unnecessary to maintain spare or stand-by busses.

The county maintains a mechanical force of ten men, two assigned to each of four service trucks, and two, including the foreman, to the Birmingham garage. Two of the truck crews handle general repairs, one lubrication, and one tire repairs. The trucks carry all necessary tools and have special bins capable of carrying more than $1,000 worth of parts. In addition, each truck is equipped with a winch and several hundred feet of half-inch steel cable.

With this equipment the road repair crews are able to handle most any repair job. A complete engine, including drive system, can be installed in five hours. In such a case the defective engine or any part thereof is brought back to the office, immediately repaired, and made ready for installation in the next bus that may need such attention. An important part of the roadmen's duties is to inspect steering gears, and brakes twice each month. The tire truck visits each school daily, repairs punctures, and tests each tire for inflation.

"Only by keeping a careful route record of each crew each day, and maintaining frequent telephone communication, are we able to cover a territory 25 miles in radius and keep up the busses," said R. O. Murphy, shop foreman. "Bus drivers are instructed to call us when they have trouble. We can then call a service crew which happens to be nearest and instruct them to catch the call. This enables us to handle emergency calls with a minimum of travel. We sometimes have to pay for long-distance telephone calls, but that is much cheaper than having a service truck double back from the central garage, when it may have been close to the source of the trouble when the call came in.

"Instead of having a mechanic and a helper with each truck, as is often the case, we require that each man be a trained mechanic. At each consolidated school stop there are usually four to a half dozen busses, so that the mechanics may work separately on small jobs, and together only on those jobs where more hands are needed. Consequently, we find it cheaper in the long run to employ two mechanics rather than a mechanic and a helper. Our men are instructed to operate on the basis of a 'stitch in time.' If, for instance, a loose wheel bearing is found, their job is to make the repair then and there; otherwise in a month's time it may cut out a grease-retaining cup, throw hub-flange bolts out of line, and even break an axle."

The 110 busses travel some 80,000 miles a month, serving 83 schools, for both white and colored children. Some of the busses make two or more trips, and transport as many as 100 children a day. Transportation is provided for 8,762 pupils. Routes are replotted each year as one set of pupils graduate or advance in grades. Movement of families is also taken into consideration, the object being to serve patrons, covering the least mileage possible. With the most economical arrangement, some of the children ride as far as 14 to 20 miles to reach school every day.

THE TRAVELING REPAIR SHOPS HAVE EVERYTHING FROM GREASE TO UPHOLSTERY TACKS

Bodies are of uniform design, being 21 ft. 2 in. long and 95 in. wide over all. Four rows of parallel seats are arranged, sufficient to accommodate 50 to 55 high-school students and 65 to 70 grammar-grade students. Entrance is by the side near the front under the watchful eye of the driver. This tends to eliminate accidents of the type which sometimes occurred with rear entrances, as in the old busses. The windows are protected by steel guard rails.

As a further safety measure, all busses are equipped with governors to hold the speed down to 35 miles an hour. Drivers having accidents without provocation are dismissed. Fortunately the county has had only three fatalities since school-bus transportation was begun in 1922. Since that time busses have traveled 3,800,000 miles. Drivers are required to sign for gasoline at truck "centers" located about the county, and each must register mileage with the principal of the school.

MECHANICS REPAIRING A BUS. THE REPAIR TRUCK IS AT THE RIGHT OF THE PICTURE

Bus drivers are carefully selected, taking into consideration their character, habits, reputation, and willingness to obey instructions. About one half of the drivers are school boys, those at the outbound end of routes being selected, so as to keep down dead mileage. A three-day drivers' school is held prior to the opening of school, and the drivers also come in once a month at pay day for further instruction. Each one signs a safe-driving pledge. In addition, frequent safety bulletins are mailed out to the drivers.

The county is rapidly changing its fleet over to busses with all-steel bodies and hydraulic brakes. Ten steel-bodied busses were added in 1933, 19 in 1934, and 25 last year. Even more replacements will be made during 1936. Although maintenance operations are complicated somewhat, the county believes it the best policy to distribute its new car purchases among several of the leading manufacturers.

The county pays approximately $80,000 a year for the transportation of its students. Some of the newer busses are operated for around three cents a mile, while some of the older and heavier models cost six to seven cents a mile. A breakdown record is kept on each machine, showing the cost of parts, labor, oil, and gas, and this is, of course, taken into consideration in making replacements.

The county's school transportation system is under the general supervision of E. B. Erwin, county superintendent of education; J. M. Farris, assistant superintendent of education; and J. Pope Baird, supervisor of transportation routes.

Differentiating Graduation from High School

George R. Johnson[1]

Since the beginning of high schools, it has been customary in most cities to issue one type of document to all students who complete the four-year course. This uniform certificate, or diploma, of graduation has indicated the satisfactory completion of the course, regardless of the quality of work, or the elective studies pursued. A student who takes six or seven years to complete a four-year course, perhaps repeating the fourth term in Latin five or six times, will obtain ultimately a minimum passing credit, and will receive a diploma exactly like the one issued to the honor members of the class. Individual variations in achievement seem to require some recognition even in certification.

New Types of Graduating Documents

In the St. Louis public schools, the June class of 1936 received for the first time two types of graduating documents. To all students who completed successfully one of the eight standard curricula heretofore authorized, the traditional diploma was awarded; and to a number of other graduates, a new type of document was issued. The new credential is entitled *Certificate of Graduation* instead of *Diploma of Graduation;* and it represents, according to the regulations, a completion of the same number of units required for the diploma. The differentiation consists in the fact that a student who started upon a two-unit elective in Latin, or a four-unit requirement in English, and found through lack of interest or ability that he could not complete the program within a reasonable time, received credit for the number of semesters already pursued successfully, and changed his program to a field of study in which he could succeed.

In all standard courses, four units of English are required; but for this new certificate a pupil who found graduation impossible because of too much retardation in English, is permitted to substitute something else, even physical education, for one of the four units. When a foreign language is taken, two units have been required to obtain any credit toward graduation; but for the new certificate, one unit will count if a change is found advisable in order to prevent excessive repetition. This liberality in electives does not permit a scattering of subjects, however, beyond the minimum requirements for admission to numerous colleges and universities now affiliated with the North Central Association of Colleges and Secondary Schools.

[1]Director, Division of Tests and Measurements, St. Louis, Missouri.

A Certificate for Credits Earned

A third certificate which was not issued this year has been authorized as a part of the St. Louis plan. In the future it will be issued to those who find it necessary to scatter their sixteen units so widely that the minimum college-entrance requirements cannot be met. This third type of certificate, which will be called a *Certificate of Credits Earned,* will be issued only to those who have acquired sixteen units of credit not organized according to any authorized curriculum for graduation. It will be issued at the time the other high-school completion documents are awarded and in the same manner; but the pupil receiving it is not counted as graduating from the high school. This fact is explicitly stated in the regulations; and it is to be explained in advance to the pupils and parents who will concur in the choice of the program leading to it. This certificate will serve to give many who are unable to complete a standard four-year high-school course a more dignified and formal exit from the school, and will provide documentary evidence of the fact that they have earned sixteen standard units of high-school credit. Such documents have a practical value in admitting students to examinations for certain types of classified and skilled services.

This provision in the St. Louis public schools for differentiated credentials was approved by the superintendent of instruction, Dr. Henry J. Gerling, upon the recommendation of assistant superintendent John Rush Powell, who is in charge of the high schools. Mr. Powell's recommendation was made with the concurrence and indorsement of the high-school principals.

Plan Recognizes Individual Interests and Capacities

This differentiation in high-school graduation seems to be one step in the direction of recognizing officially the fact that high-school students do vary widely in their interests and capacities. It seems to give official recognition, also, to the rapidly increasing tendency of children of all the people to seek a high-school education. Actually public high schools are no longer selective institutions, designed to weed out and eliminate all members of society who are incapable of pursuing the learned professions. High-school enrollment in the country has doubled within a very short span, and school administration cannot wisely adhere to the uniform standards fixed in former years for a highly selected group.

Obviously the standards of scholarship prevailing in the authorized courses are in no way affected by the new plan; but a supplementary channel is opened through which a large number of additional students receive official recognition for what they have been able to do in the high school. The plan avoids eliminating certain pupils from school under the humiliation of failure, or requiring them to repeat courses an excessive number of times at public expense. In brief, the plan is related not to scholarship standards, but to school opportunity. It broadens the scope of educational service given by the school to the community.

Admittedly the average achievement grade or institutional index as determined by graduates alone, will be lowered by graduating a larger number of students consisting of those who have demonstrated inferior ability along certain lines; but the scholarship attainments of the select students who are graduated in the standard curriculum, can be even higher. The institutional score, after all, measures the school's selectivity more than anything else. The school's average score will stand very high when only the upper tenth of the student body is permitted to graduate; it will be a little lower when a larger portion of the class can finish. Too often the school's average mark made by the successful students is interpreted erroneously as an index of scholarship, whereas it is merely an index of selectivity.

In view of the effort to widen educational opportunities for all who continue through four years of high-school study, it is possible that concessions do need to be made in scholarship standards for individuals of the unclassified type. Such concessions should be individual, however, and not general. The raising of standards for selected individuals who have demonstrated superior ability should accompany, and possibly offset, in full any lowering of standards granted to individuals of inferior ability. It is believed that the administrative adjustments are the necessary forerunners of pedagogical adaptations. It is very difficult, almost impossible, for teachers to make suitable variations in study assignments, or standards of performance, when the administrative organization provides only the uniform curriculum and the uniform graduation. Administrative action which points the way to a desirability of recognizing individual variations should give teachers both the opportunity and the encouragement to individualize their teaching.

Evolution of *Floor Treatment* in Ventura

Lyal L. Wells[1]

One of the problems of the school janitor and of the maintenance man, and one of the things that an observing and orderly schoolman has ever to deal with, is the care of classroom floors. As much as any part of the building the floors are used and used hard, five days in the week, nine or ten months during the year. Besides the ordinary tramping and its accompanying wear and tear, every rainy day adds the grinding and cutting of sand and soil carried in on busy shoes. Ink is often spilled on the floor; and paints, chemicals, and dyes add to floor untidyness that conscientious janitors have to worry over. Even food materials are spilled or dropped on the floors and add to the cleaner's troubles. The problem is to find a treatment which will give the floor the most protection, make it look the best, which can be cleaned easily and quickly, but which will cost the least.

Several years ago the Ventura, California, school department scrubbed and oiled the floors of the school buildings each summer. Now an oiled floor looks fine until the traffic has been on it for a couple of days. Then it begins to turn dark and, unless the almost inaccessible edges and corners are scraped each year, the rooms develop a dirty black border.

The first step in the evolution of our floor treatment was to buy scrubbing machines which did a much more thorough job of cleaning the floors, and did it more speedily, not to mention the reduction in the janitor's labor. With the scrubbing machines it was found necessary to use vacuum pick-up machines to draw the water from the floor.

Not long after we had established this system, a new gymnasium was built as part of our junior-high-school plant. A floor treatment was used that left the floor with a smooth, natural finish. We tried to purchase some of the material to use on the other floors, but the manufacturers of the treatment were reluctant to let us apply it. However, we learned of a similar combination of products which could be bought and which we used with good results on several floors. These treatments consisted of a floor sealer and a surface finish. The contents of the finishing material was such that the floor was given a smooth, hard finish.

After we had decided to refinish all our wood floors, gradually, with this treatment, we found it necessary to buy a sander. We first purchased a small sanding machine that could be used both on desk tops which needed refinishing or on floor spaces that were to be treated. This machine was excellent for desk tops, but proved to be rather slow when used on the large areas of classrooms and corridors. Nevertheless we started to work over our floors by treating a hall here and a kindergarten there and many of the smaller rooms and offices.

We were so satisfied with the condition of these floors that it was decided to treat all the floors. It was agreed to do it the following summer and a large sanding machine was felt to be necessary.

In the meantime, we learned that we could use a good floor wax in place of the treatment we had introduced. We learned, too, that the wax could be applied to our linoleum floors as well as to the wood floors. The wax had to be applied two or three times a year, and would require the use of polishing machines. This meant that if a wax treatment was to be adopted, it would be necessary to equip all buildings with polishing machines.

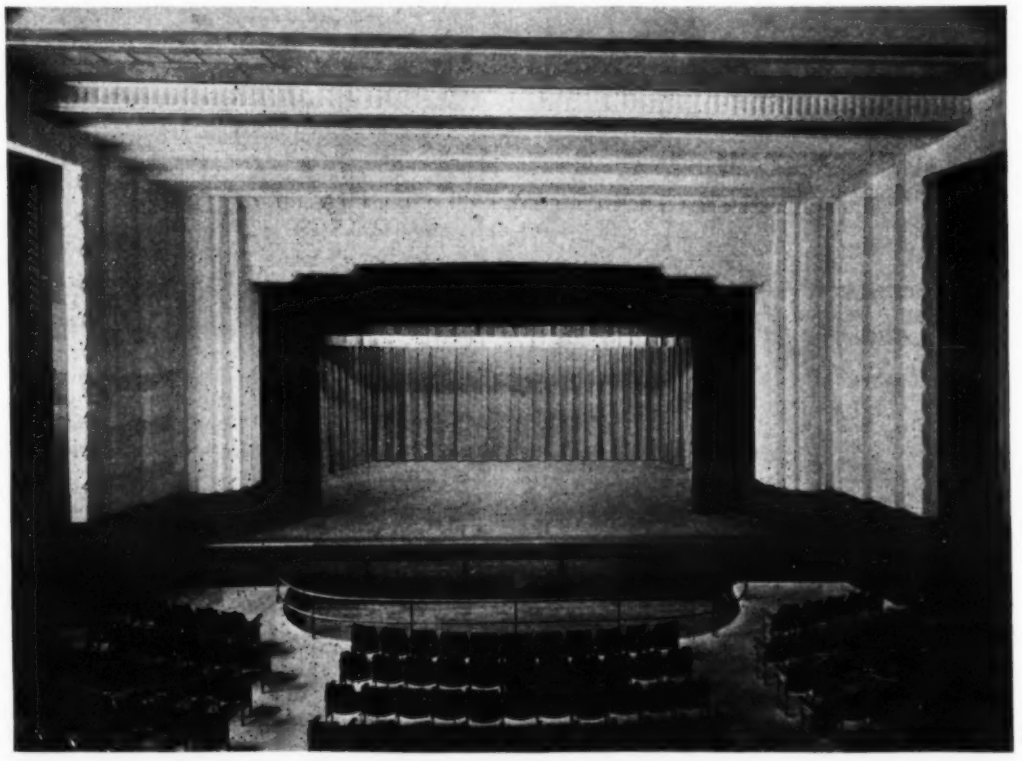
After sanding and sealing our floors, the chief part of the upkeep was waxing and polishing. Both wood and linoleum floors must be cleaned, then waxed, and after a few hours, polished, so that the job of putting the buildings in shape at the close of the school year or during vacations, kept the janitors busy for some time.

Then we discovered a self-polishing floor wax. This material cost less than the older types of wax, was easy to apply, and gave the floors an excellent appearance.

Now we clean our floors thoroughly once or twice a year; that is, we remove the inkspots, stains, marks made by composition soles, etc. The wax finish makes this cleaning a simple operation. Then all we have to do is spread a fresh coat of wax and in a few minutes the floor can be used. Traffic, unless it is concentrated in a small area, improves the looks of the floor.

We have been able to buy a good wax at a low cost. Best of all, we do not have to buy and maintain a great outfit of floor-treatment machinery. We save labor costs, and still have floors that look well and are easy to clean.

[1]Purchasing Agent, Ventura Union High School District. Ventura, California.



AUDITORIUM IN THE WASHINGTON JUNIOR HIGH SCHOOL AND JEFFERSON GRADE SCHOOL, CLINTON, IOWA
(See Page 33)

GENERAL EXTERIOR VIEW, WASHINGTON JUNIOR HIGH AND JEFFERSON GRADE SCHOOL, CLINTON, IOWA
Architects: A. H. Morrell, Clinton; Keffer & Jones, Des Moines, Iowa.

Two Schools Under One Roof

The Washington Junior High and Jefferson Grade School, Clinton, Iowa

The Washington Junior High and Jefferson Grade School building at Clinton, Iowa, represents a type of structure not frequently found in American cities. The building houses two separate and distinct school organizations — a complete elementary school, including a kindergarten and six grades, and a complete junior high school comprising grades seven, eight, and nine. Each school has its own principal and its staff of teachers; each conducts its work according to its program, and the two work co-operatively to share to special advantages of the larger units of the building — the auditorium, the library, the health unit, and the gymnasium. Incidentally, the building is so planned that the gymnasium and the auditorium can be used by the community at large and can be lighted, heated, and entered without opening the balance of the building.

The elementary school occupies the first and second floors to the left of the main entrance of the building. It includes on the first floor the kindergarten and seven classrooms. In addition there are on the second floor two fifth- and two sixth-grade rooms and these are so placed that the children have access to the library which is planned specifically for the junior high school.

The office of the principal of the grade school and the health unit adjoin the main entrance so that they are readily accessible to the grade pupils. The toilets and other service facilities for the grade children are conveniently located, and stairs, exits, and playgrounds have been planned so that the grade children are practically without contact with the older pupils.

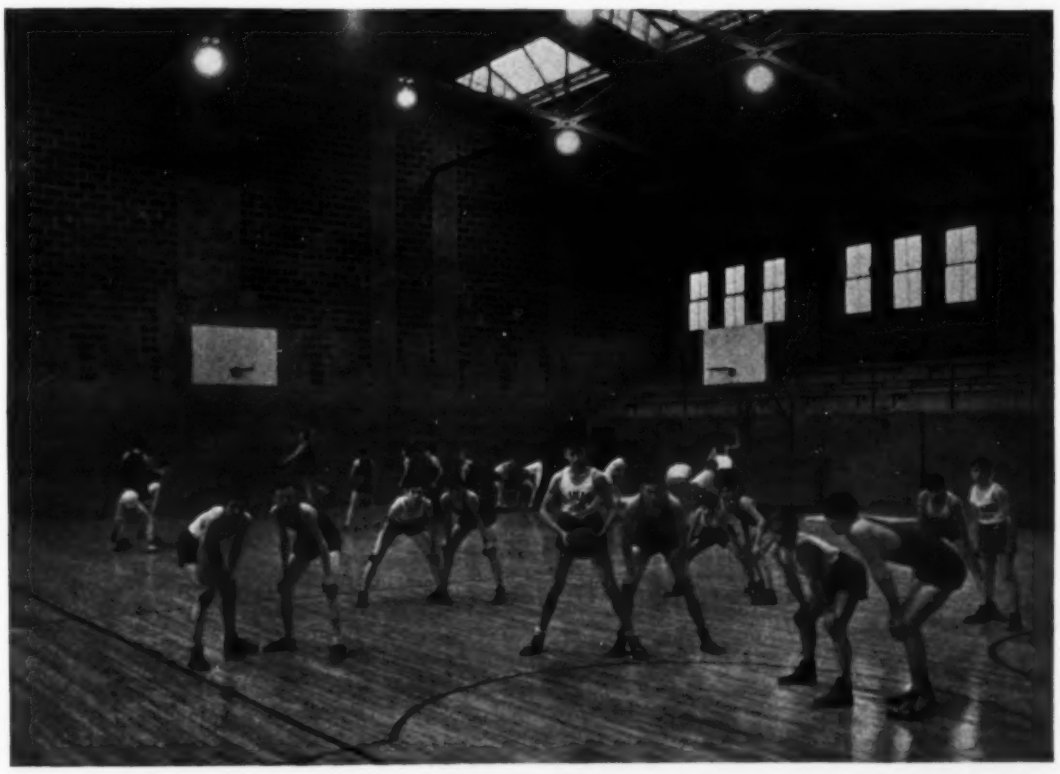
The junior high school is located to the right of the main entrance and extends back in the wing which joins the auditorium and the gymnasium. It includes on the first floor seven classrooms, a music room which is planned for small assemblies, a metalworking and a woodworking shop, a shop lecture room, and various storage and utility rooms. On the second floor there are a large library with a bookstack adjoining, five classrooms, a science lecture room, science laboratory, an artroom, a study room, a cooking and a sewing room, and various toilets and service rooms.

The auditorium measures 65 by 75 feet and has a seating capacity on the main floor and in the balcony of 975. The stage is fully equipped with curtains and scenery and lighting equipment suitable for theatricals and musical performances.

The gymnasium which measures 65 by 89 feet is equipped with a large sliding partition arranged so that it may be used in two parts by boys and girls. The balcony contains 400 permanent seats, and the room is so planned that 600 additional portable seats may be introduced during exhibition basketball games.

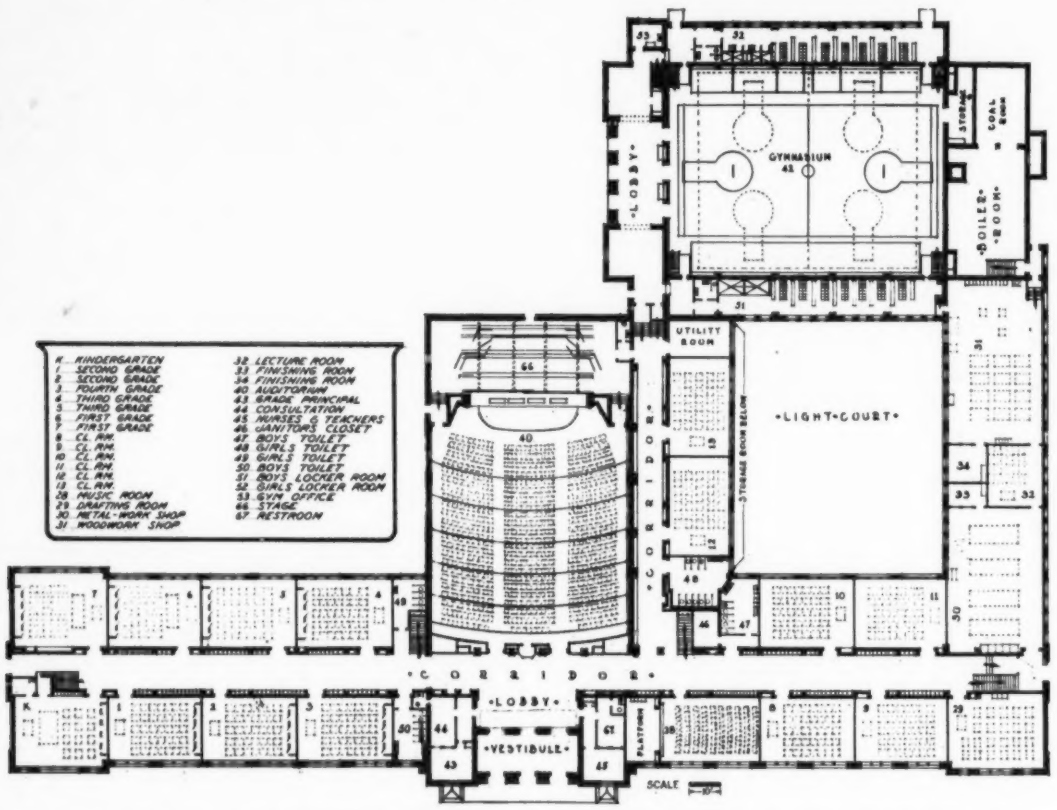
The building is designed in a modern style

TYPICAL CORRIDOR IN WASHINGTON JUNIOR HIGH SCHOOL, CLINTON, IOWA

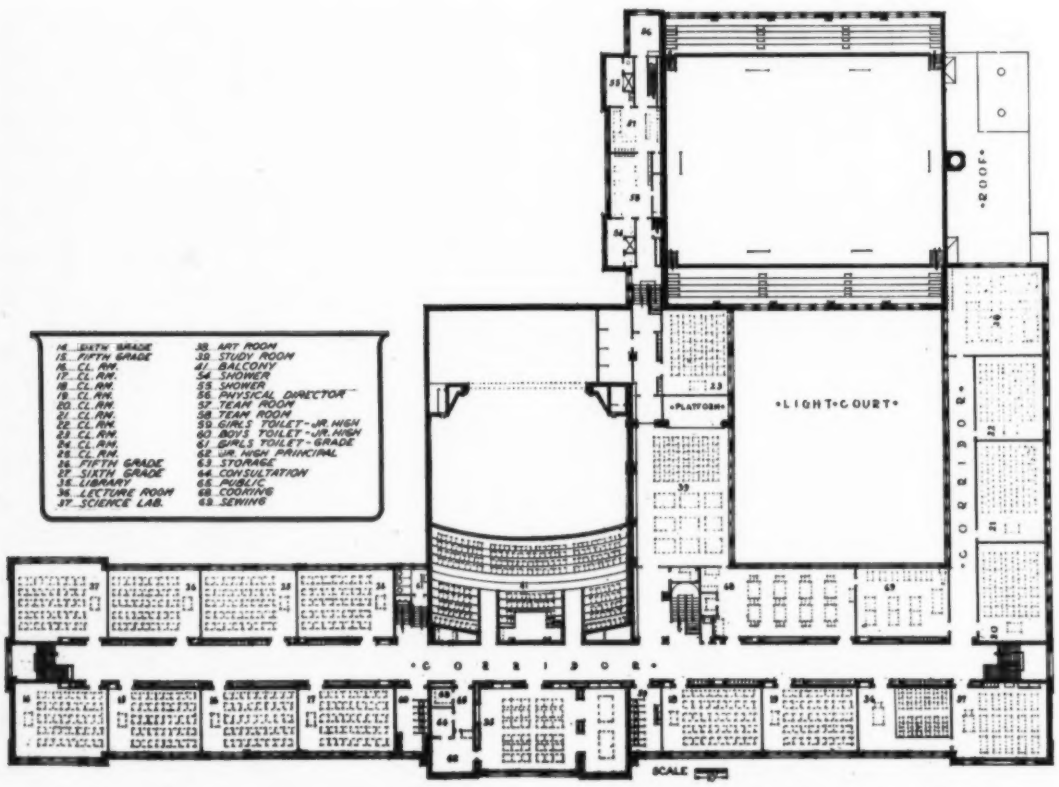


THE GYMNASIUM, WASHINGTON JUNIOR HIGH SCHOOL AND JEFFERSON GRADE SCHOOL, CLINTON, IOWA

REAR VIEW, WASHINGTON JUNIOR HIGH AND JEFFERSON GRADE SCHOOL, CLINTON, IOWA
Architects: A. H. Morrell, Clinton; Keffer & Jones, Des Moines, Iowa.



FIRST FLOOR PLAN, WASHINGTON JUNIOR HIGH AND JEFFERSON GRADE SCHOOL, CLINTON, IOWA



SECOND FLOOR PLAN, WASHINGTON JUNIOR HIGH AND JEFFERSON GRADE SCHOOL, CLINTON, IOWA
Architects: A. H. Morrell, Clinton; Keffer & Jones, Des Moines, Iowa.

with pressed brick facing and Bedford stone trim. The construction is of reinforced concrete except in the gymnasium and auditorium where steel has been used. Corridors and stairs have terrazzo floors and tiled wainscot. The classrooms and other instructional areas have maple floors, plaster walls, fiber-tile ceilings, and oak trim. The auditorium has a cement floor, ornamental plaster walls, fiber-tile ceiling, and oak trim. The gymnasium has a maple floor, brick and tile walls, and cement balconies. The toilet rooms are finished with terrazzo floors, tile walls, and metal partitions.

The building is heated by means of low-pressure steel boilers, unit ventilators in the classrooms, and central fans in the auditorium and the gymnasium. Automatic temperature control of the dual or two-temperature type is provided.

The building is planned for a total capacity of 1,200. The cost of the building was $290,000 and of the equipment, $38,000. On the basis of the cubic contents, the cost was 19.3 cents per cubic foot cost. The per pupil cost was $241. The building was planned by A. H. Morrell, architect, Clinton; and Keffer & Jones, architects, Des Moines, Iowa. The educational planning was under the direction of Mr. C. W. Brown, superintendent of schools.

SCHOOLHOUSE RENOVATION AND FEDERAL AID

Through a recent congressional amendment to the Federal Housing Act, school buildings have been added to the list of properties eligible for government loans. This means that aid in the form of loans may be secured for the purpose of financing repairs, alterations, or additions to the present structure. New structures are not here contemplated.

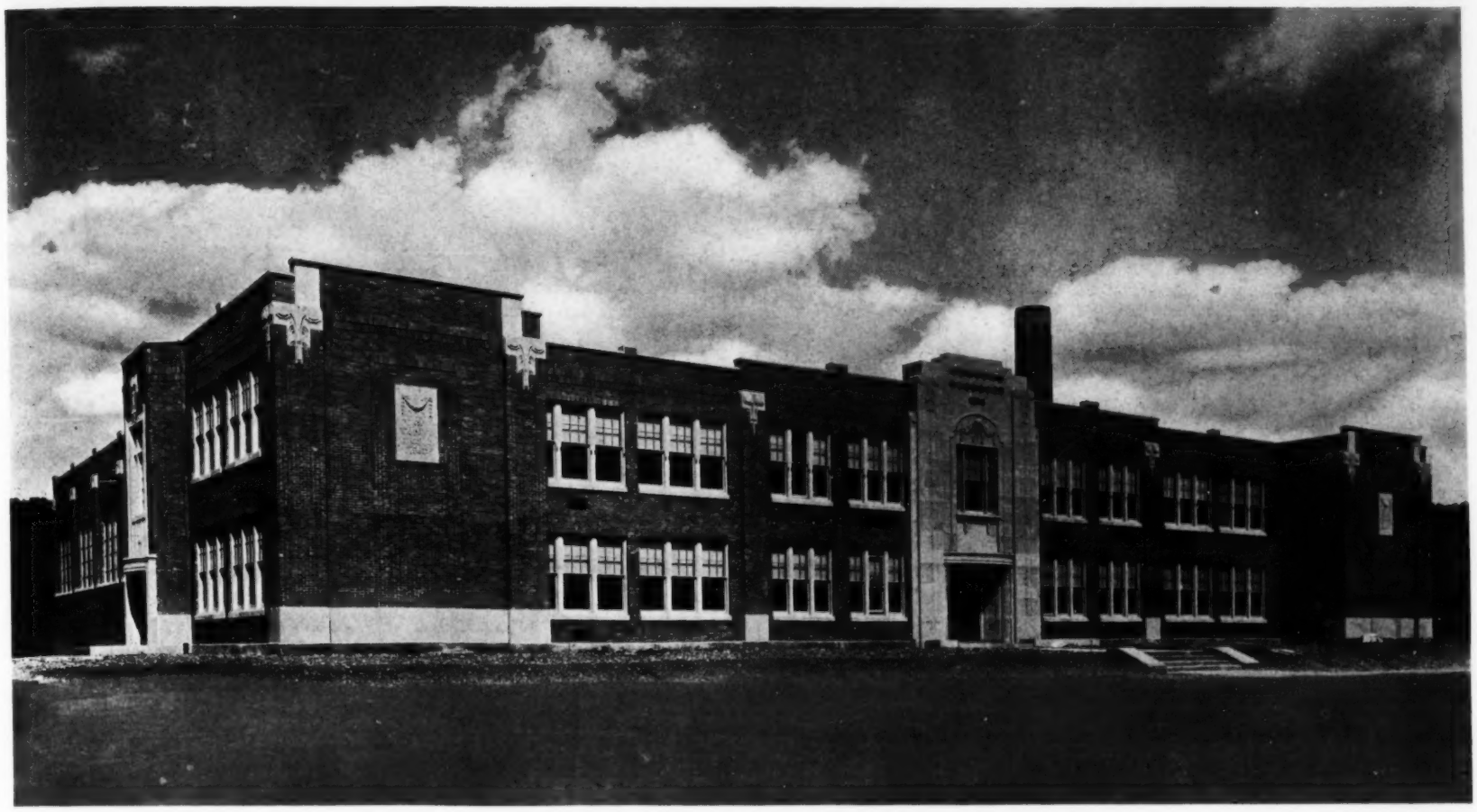
The loans thus made may run at any figure up to $50,000, covering a period of five years — subject to repayment in monthly installments. The borrower may negotiate the loan through an approved local lending agency at the lowest interest rate he may obtain. Such agencies consist of state and national banks, trust companies, building and loan associations, and the usual finance corporations. These co-operate with the Government Housing Administration in perfecting the loans.

Where schoolhouse property is in need of rehabilitation, those in charge should concern themselves as to just what should be done to halt deterioration and obsolescence, estimate costs, and apply for the necessary loan. Where the ready means are not at the command of the school authorities the offer made by the government affords timely assistance.

Inquiries concerning loars may be addressed to the nearest agency of the Federal Housing Administration (usually in the largest city in each state or in the state capital city) or to the Federal Housing Administration at Washington, D. C.

WILL MEET IN AUSTIN

The National Council on Schoolhouse Construction has announced that its 1936 conference will be held October 5 to 8, in Austin, Texas. Mr. W. G. Eckles, Jackson, Miss., president of the Association, and Dr. Ray L. Hamon, Nashville, Tenn., secretary, are preparing the program.



GENERAL EXTERIOR VIEW, CENTRAL SCHOOL NO. 1, SOUTH ONONDAGA, NEW YORK
Randall & Vedder, Architects, Syracuse, New York.

The *Onondaga* Central School

During the past five years the Central School has come to its own in New York, and scattered over the entire expanse of the Empire State there is a series of new, modern school buildings which have set an entirely new standard for educational utility, high quality in construction, and economy in first cost and maintenance. Without question, the keen leadership of the State Department of Education through its Division of Buildings and Grounds, and the high quality of architectural service which has been available, have been important contributing factors in this educational achievement. The children of rural New York, so far as school housing is concerned, have every advantage which is enjoyed by the children of the better cities.

One of the notable central schools begun in 1934 and occupied in September, 1935, is the Central School No. 1 at South Onondaga. The school serves Central District No. 1, comprising the towns of Onondaga, Lafayette, Marcellus, and Otisco, and is located about twelve miles south of Syracuse.

The building has been developed in a modified modernistic style, with exterior walls of pressed brick of a light reddish texture and gray litholite trim. The building is two stories high and is without a basement except for a small area occupied by the heating and ventilating apparatus, the janitor's workroom, and fuel storage space. The front is 179 feet 6 inches long, and the classroom wing is 122 feet 8 inches deep.

The schedule of rooms is as follows:

First floor

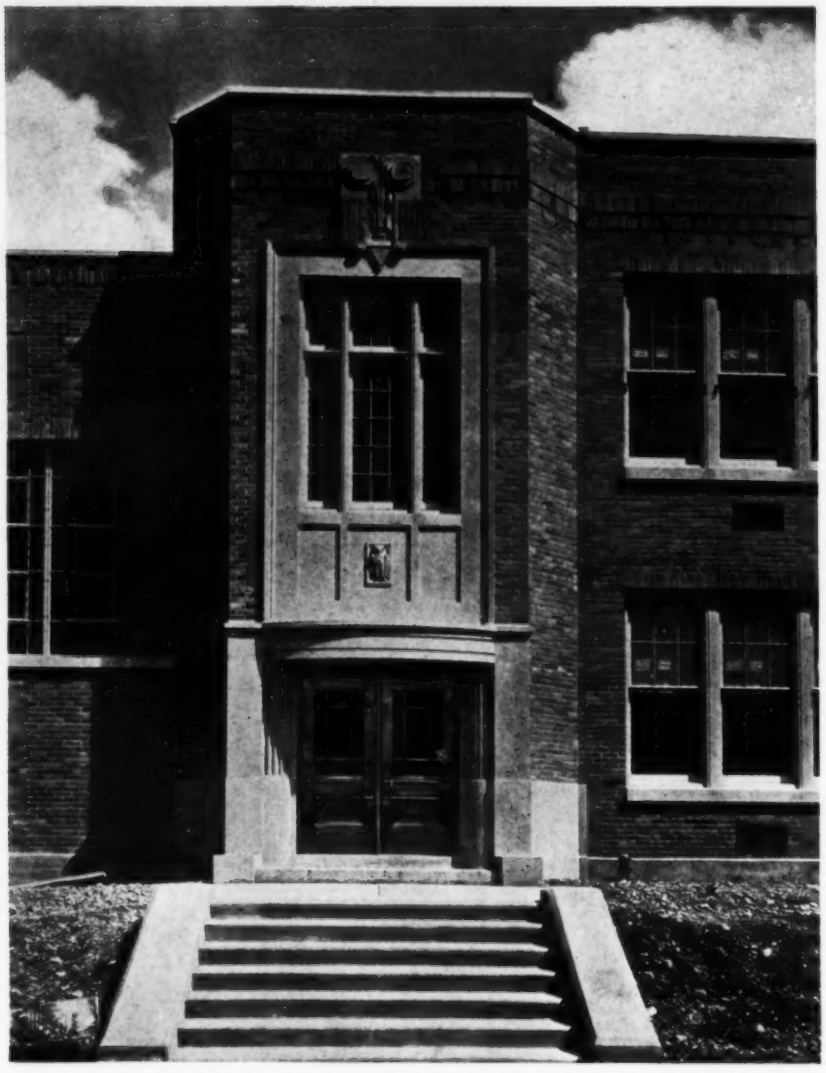
5 grade rooms, 22 by 30 feet, seating 42 pupils each
Office, doctor's and nurses' room
Teachers' restroom
Industrial arts
Cafeteria, 22 by 48 feet
Kitchen
Boys' and girls' toilets
Locker rooms for boys

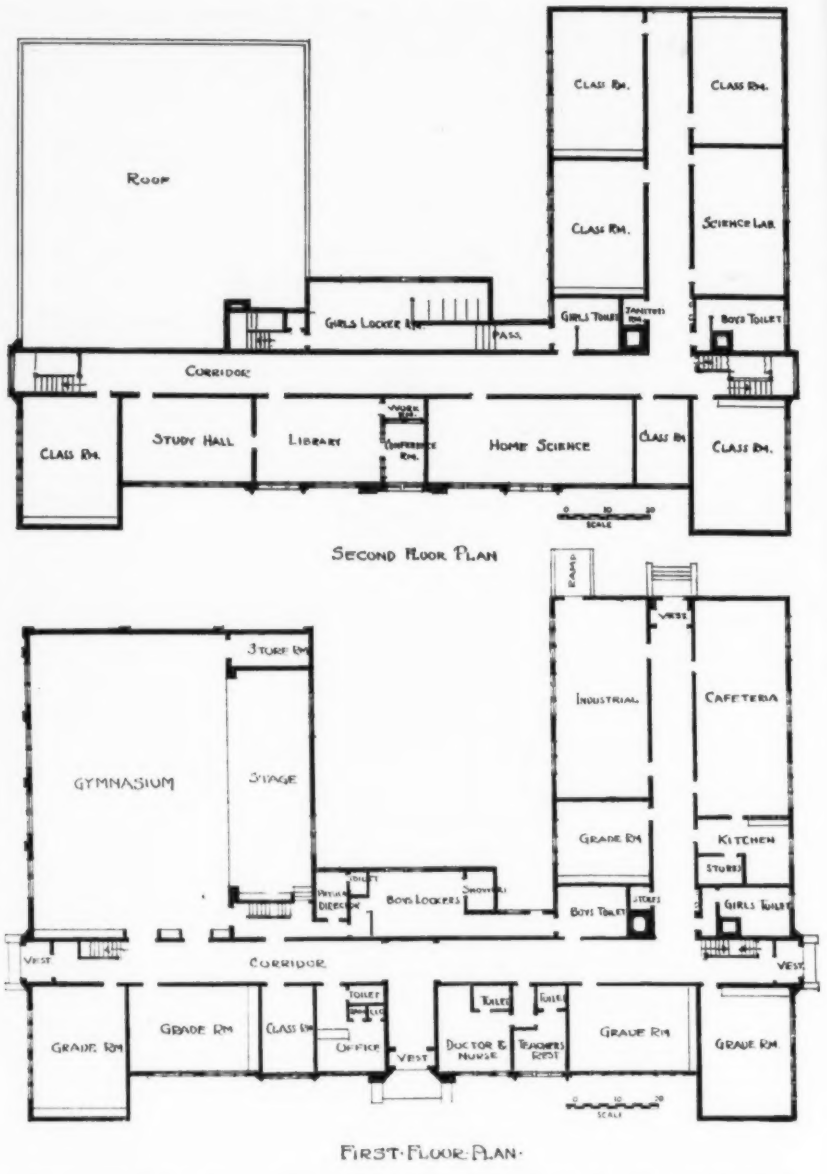
Second floor

6 classrooms, 30 by 22 feet
Study room, 30 by 22 feet
Library, 30 by 22 feet
Conference room, 18 feet by 10 feet 8 inches
Home science, 48 feet 8 inches by 22 feet
Classroom, 22 feet by 11 feet 8 inches
Science laboratory, 36 feet 2 inches by 22 feet
Boys' and girls' toilets on this floor
Girls' lockers on this floor.

The most interesting room in the building is the auditorium-gymnasium, which measures 68 by 45 feet and which is fully equipped for all assemblies of the school as well as for civic and social meetings in which the community takes part. The ceiling is sound absorbing, and the walls are finished in ornamental brick ranging in color from a warm buff to a rich dark brown. Ornamental-tile inserts have been provided to accentuate the proscenium arch with contrasting colors. The stage, which measures 50 by 19 feet, is completely fitted with curtains, scenery, and lighting equipment so that it can be used for theatricals, operettas, and school assemblies. The auditorium has a seating capacity of 600. Movable seating for 200 may be placed on the stage during basketball games. Boys' and girls' lockers, showers, and toilets are provided so that the gymnasium is the cen-

LIBRARY AND CONFERENCE ROOM, CENTRAL SCHOOL NO. 1, SOUTH ONONDAGA, NEW YORK





(ABOVE EAST SIDE ENTRANCE. (RIGHT) FLOOR PLANS. CENTRAL SCHOOL NO. 1, SOUTH ONONDAGA, NEW YORK
Randall & Vedder, Architects, Syracuse, New York.

ter for a well-balanced physical-education program.

The building is entirely of fireproof construction, with concrete floors and roof slabs, brick bearing-walls, and steel trusses over the long span of the gymnasium-auditorium. The corridor floors are finished in terrazzo. The classroom, gymnasium, and other floors are of hard maple. The interior finish and doors are of oak, interior door frames are of metal, and, so far as possible, metal has been used for interior finish and equipment.

The building is heated by low-pressure steam furnished by a steel boiler. Unit ventilators are provided in all instructional areas.

The building was partly financed with PWA funds and has the proud distinction of being the only school erected in New York state under government financing up to the end of 1935 that has been built without a single extra. The total contracts except for the equipment were $176,295.

The school board under whose direction the building was erected was as follows: Harry E. Annable, president; Winfield Tanner; Elizabeth Long; Elmer Hayden; Ralph Beak; Mrs. Esther Gwilt, clerk of the board, and M. F. Helfer, school principal.

The architects were Messrs. Randall & Vedder, Syracuse, N. Y.

THE AUDITORIUM-GYMNASIUM. CENTRAL SCHOOL NO. 1, SOUTH ONONDAGA, NEW YORK
Randall & Vedder, Architects, Syracuse, New York.

GENERAL EXTERIOR VIEW, BRECKENRIDGE PUBLIC SCHOOL BUILDING, BRECKENRIDGE, MINNESOTA
Nairne W. Fisher, Architect, St. Cloud, Minnesota.

The *Breckenridge* Public School

The Breckenridge Public School is one of the early PWA projects to be planned and constructed in the State of Minnesota. The building was designed in the fall of 1933 and contracts for it were let in May, 1934. The building was completed in the spring of 1935.

The building is planned to house a complete elementary school consisting of a kindergarten-primary class, grades 2 to 6, and a six-year high school comprising grades 7 to 12. It is further intended to serve as a social center for various informal adult-education activities and for civic and social gatherings.

The exterior is designed in a simple modern style which expresses the educational purpose and is a logical use of the materials of construction. Reinforced concrete has been used for the skeleton of the building except in the auditorium and gymnasium which is erected with structural steel. The exterior walls are faced with brick in variegated shades of tan and brown, and Indiana limestone has been used for the trim. The back-up of the outside walls and the interior partitions are clay hollow tile. The floors and roof slabs are of reinforced concrete joists.

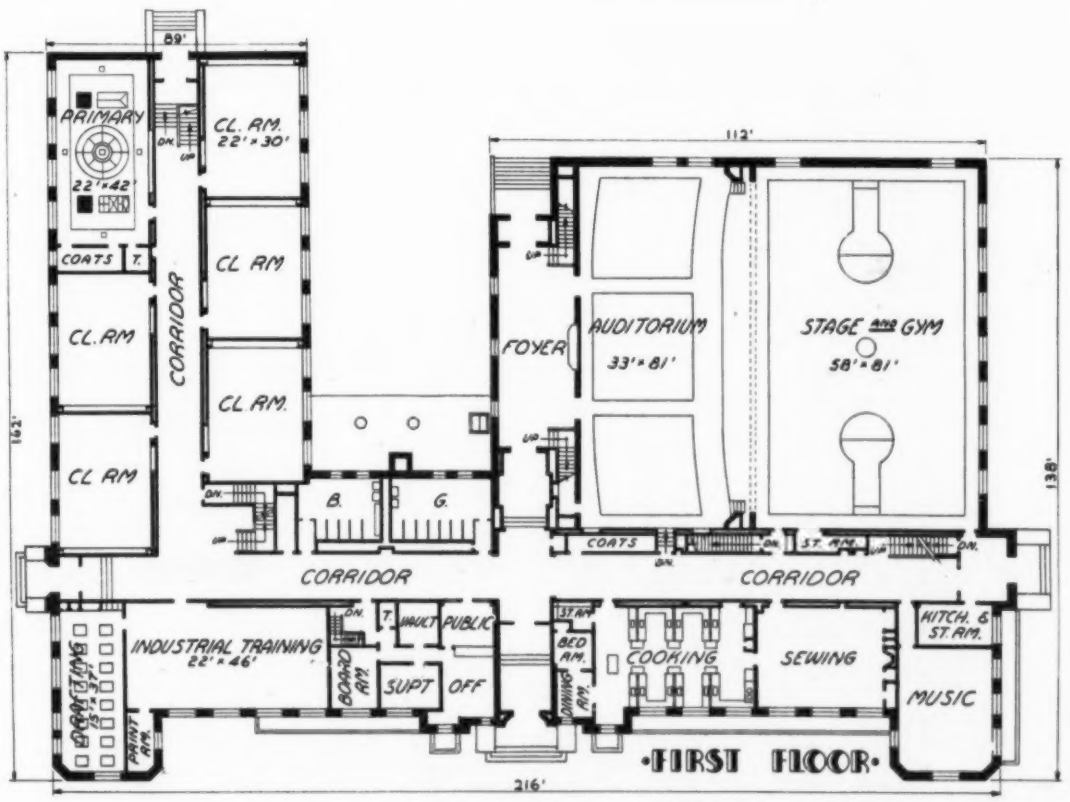
Except for the auditorium-gymnasium which has glazed tile and brick-finish walls, all the rooms are plastered. The ceilings throughout are treated with standard acoustical gypsum tile. The finish floors in the classrooms are maple; in the corridors, stairways, showers, and toilets, terrazzo; in the foyer, design terrazzo; in the library and study rooms, marbleized asphalt tile. In the auditorium cement has been used for the floors under the seats and recessed linoleum in the aisles. The stage-gymnasium has a maple floor.

The building has been planned for efficiency in instruction and administration and for flexibility in the development of departments and courses. The administrative offices are located on the first floor adjoining the main entrance. On this same floor also are the general shop, the drafting room, the cooking and sewing rooms, the music room, and the six classrooms of the elementary school. On the second floor there are four recitation rooms, a study hall for each the junior and senior high school, an English and speech-arts room, two rooms for the commercial department, a general-science laboratory, a chemistry laboratory, a science lecture room, and a large library. The basement is unexcavated except for the shower and locker rooms, a storeroom for supplies and equipment, a book storeroom, a meeting room, and the boiler and fuel rooms.

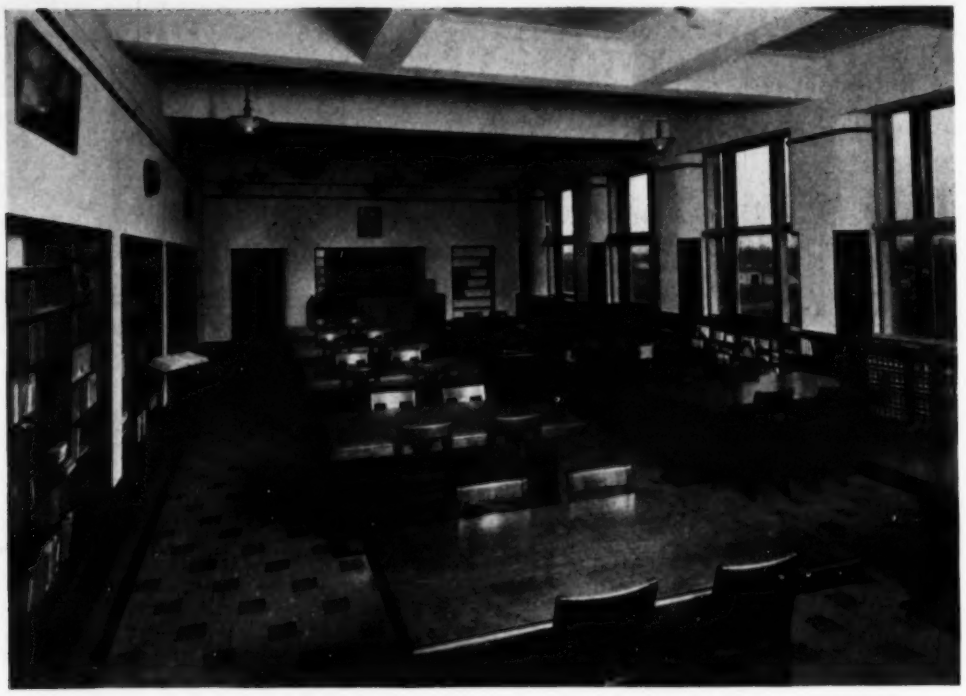
The classrooms for the elementary school are fitted with 12 by 15 by 60-inch metal lockers. The kindergarten-primary department has a coatroom and a special toilet. For the junior- and senior-high-school departments, lockers are provided in the second-floor corridors.

The auditorium-gymnasium is so located that it can be entered directly through the main lobby of the building or through a separate entrance. Gates are provided in the corridors so that the room may be used at night without opening the balance of the building. The room is seated for 690 persons and is so arranged that when the scenic equipment is drawn back on ceiling tracks, both basketball backstops can be seen from every seat. The stage is fitted with a velour curtain and with ample drops and lighting outlets so that it may be used for school assemblies and theatricals. The entire room is heated and ventilated by a central fan and has recirculating units on the stage.

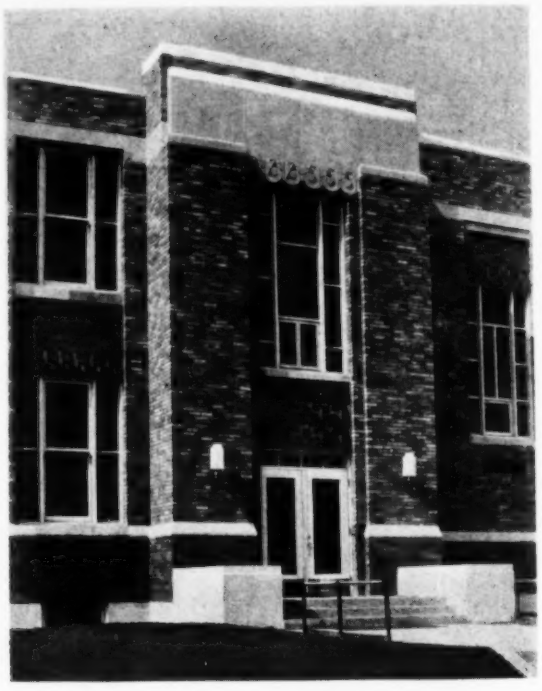
The building is heated by a two-pipe vacuum steam system. Two steel boilers have been in-



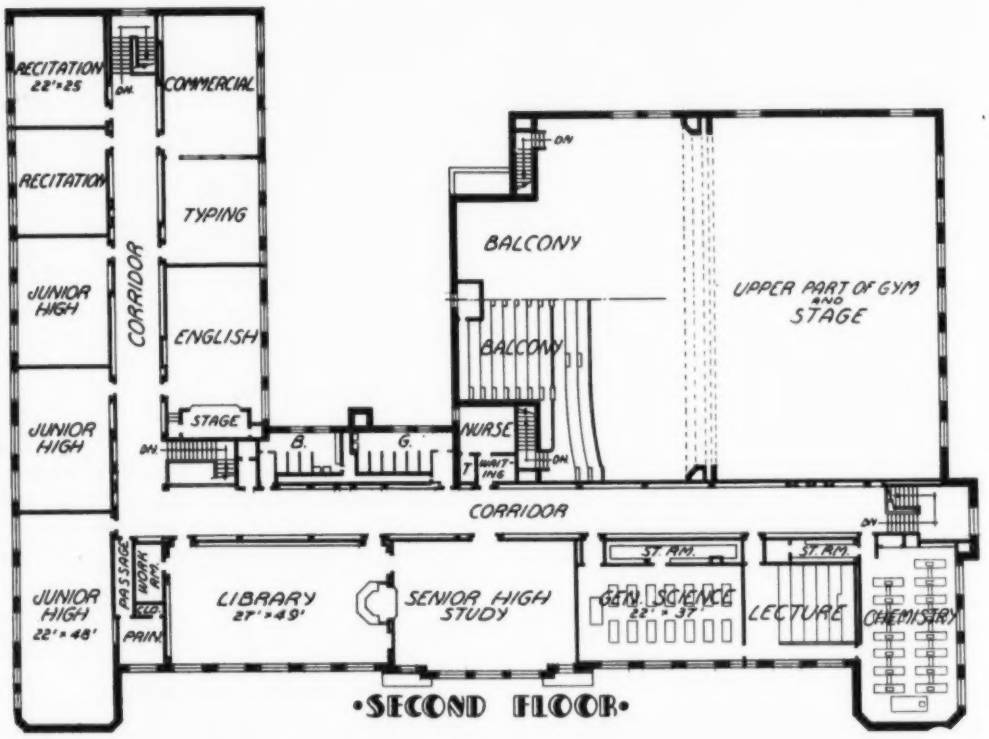
BRECKENRIDGE PUBLIC SCHOOL BUILDING, BRECKENRIDGE, MINNESOTA
Nairne W. Fisher, Architect, St. Cloud, Minnesota.



LIBRARY, BRECKENRIDGE PUBLIC SCHOOL BUILDING, BRECKENRIDGE, MINNESOTA



EAST ENTRANCE, GYMNASIUM PORTION



BRECKENRIDGE PUBLIC SCHOOL BUILDING, BRECKENRIDGE, MINNESOTA
Nairne W. Fisher, Architect, St. Cloud, Minnesota.

COOKING ROOM, BRECKENRIDGE PUBLIC SCHOOL BUILDING, BRECKENRIDGE, MINNESOTA

stalled, of which one is fitted with a stoker. The radiators throughout are wall-hung, and each classroom and instructional area has recirculating unit ventilators. The toilets, locker rooms, kitchen, and chemistry laboratory have exhaust fans.

Every department of the building has been studied from the standpoint of providing built-in cabinets, book storage, etc., suited especially to the activities to be carried on. The home-economics kitchen has been laid out on the basis of unit kitchens, each unit containing two sinks, two electric ranges, built-in cupboards, etc. A large electric range is provided for the instructor.

The sewing room has ample storage space for work in progress, a fitting mirror, display and storage cabinets.

The library, which is the academic nerve center of the school, has built-in shelving, special tables and chairs, and a charging desk, all designed to harmonize in color and finish.

Following are cost details:

General construction	$148,156.87
Mechanical construction	29,936.67
Electrical construction	8,629.60
Temperature control	3,198.60
Equipment*	10,946.10
	$200,867.84
Architect	10,043.39
Total cost	$210,911.23

*Includes auditorium seating, laboratory equipment, library equipment, stage and scenic equipment, window shades, and stoker.

Cubic contents — 816,973 cubic feet

Construction cost per cubic foot — 24.5 cents, or $309 per pupil

Total cost per cubic foot — 25.8 cents, or $324 per pupil

Accommodations: grades, 225; junior, 125; senior, 250.

The building was designed by Mr. Nairne W. Fisher, who has planned a considerable number of school buildings under PWA auspices.

SOLVING THE SCHOOL-CAFETERIA PROBLEM

In 1931, the Lexington, Kentucky, school cafeterias were all placed under the control of the board of education and the direction of Mrs. Virginia Marrs. A recent report says:

"The selection of trained personnel, the purchase of staples for the entire system through bids, and the centralized administration under a supervisor of lunchrooms, have definitely improved our lunchroom service, an important auxiliary agency so necessary in a modern school system. No cafeteria is ever permitted to run a deficit or leave unpaid bills at the end of the year, and the aim at all times is to provide attractively, good food at the lowest price possible, with the requirement that all lunchrooms must bear their own expenses."

Local Versus *State* or National Control of School Plant Planning[1]

N. E. Viles[2]

For a number of years there has been a growing demand for increased state and federal support of public education. This demand has brought into prominence the problem of local versus state or national control of certain phases of our educational program. Until about 1920, school-plant planning was considered almost wholly a local problem. The local district provided all, or nearly all, of the funds for capital outlay, and local school officials determined the type of building to be erected. The development of improved standards for school-plant planning, a realization that local control has not always provided adequate housing facilities, and the granting of state subsidies and of federal aid through the PWA for school-plant improvement raised the question of the best type of control for school-plant planning.

[1]A paper delivered before the Division of Buildings and Equipment, Department of Superintendence, St. Louis, Mo., Feb. 24, 1936.

[2]State Department of Education, Jefferson City, Mo.

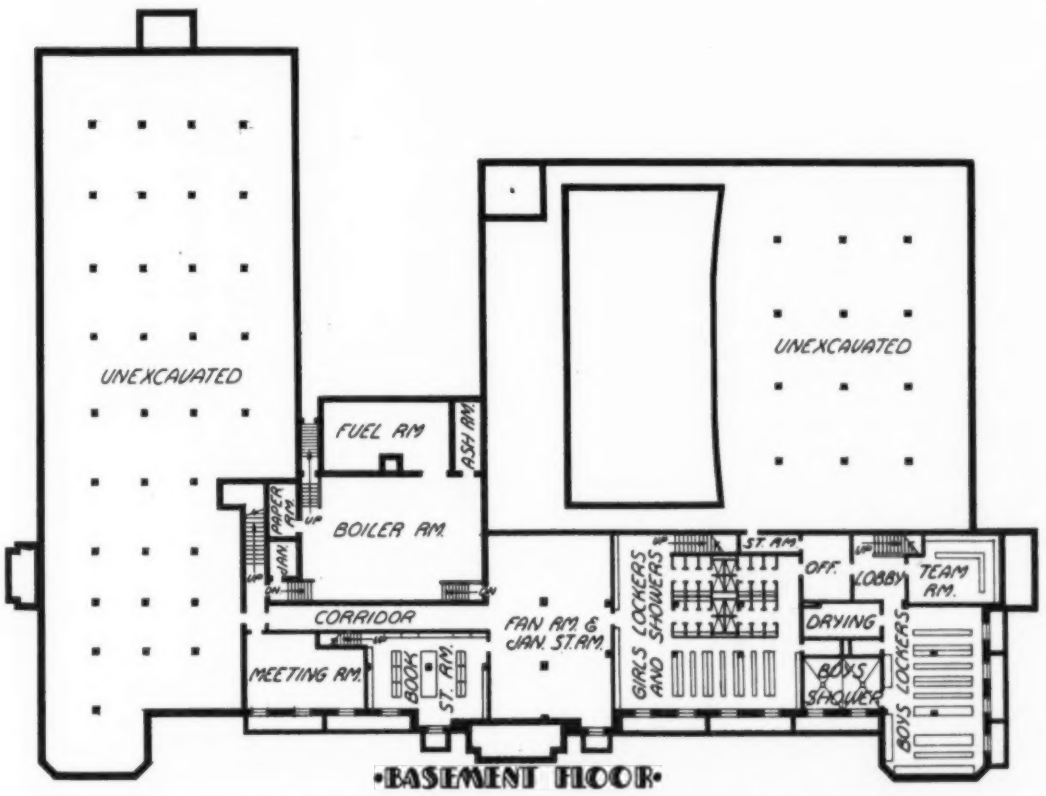
Local Control

The proponents of local control contend that home rule and local control are essential to the development of local pride in the schools. During the past few decades the mobility of our population and of our wealth has lessened the value of this argument. However, there are some advantages in local control of school-plant planning. Local districts must still depend to a great extent on local support and local taxes for funds to operate the schools and for building improvements. Local pride and the satisfaction of self-accomplishment are important factors in obtaining this support. The local citizen is more inclined to point with pride to a community school building than to a federal building of equal beauty but in which the local citizen feels he has little part.

On the other hand, there are some disadvantages in complete local control of school-plant planning. Many of the buidings now in use are examples of the inefficiency of local planning as practiced during the last half century. These buildings have been criticized many times because of a waste of space and uneconomical construction. Teachers and school patrons criticize many of these buildings because they are not adequate to house the school program, or because they are not safe, sanitary, or conveniently arranged. School buildings are sometimes erected on a competitive basis. "Keeping up with the Joneses" may be a factor in determining the amount of money to be spent and the type of building desired by the community.

Functional planning for school-plant improvement is a specialized phase of educational administration, and it is the duty of school officials to prepare educational specifications setting forth the needs of the school before an architect is authorized to draw the plans. In most cases the local school officials have not had the training necessary to do a good job of school-plant planning. Such planning should be based on a comprehensive survey of local needs and local conditions; it should be a part of a long-time planned program, based on a study of community and educational trends. It should be free from local politics, pull, and favoritism. The study should be made deliberately. In a majority of the local districts the school officials welcome state or federal aid in overcoming some of these obstacles to efficient and economical school-plant planning.

MAIN SOUTH ENTRANCE, BRECKENRIDGE PUBLIC SCHOOL BUILDING, BRECKENRIDGE, MINNESOTA
Constructed of variegated Bedford Indiana limestone, with carving symbolic of geography and modern science; bronze lighting fixtures.



BRECKENRIDGE PUBLIC SCHOOL BUILDING, BRECKENRIDGE, MINNESOTA
Nairne W. Fisher, Architect, St. Cloud, Minnesota.

State or National Control

Before discussing state or national control, it seems desirable to call attention to the fact that the local school districts were created by an act of the state. Regulations and laws controlling their development were made at a time when complete local autonomy may have been more feasible than at the present time. We have arrived at a time when state or federal financial aid must be provided for many school districts or the school children will be deprived of many advantages that would be provided in safe, sanitary, and adequate buildings. The writer has previously pointed out the fact[3] that in many school districts not more than $50 per pupil can be made available for construction purposes even if there were no bonded debt.

When the state or federal government provides money for construction purposes in the local district, we may anticipate some supervisory control over the expenditure of the money. Experience has proved this to be necessary. In February, 1936, a board of education in a small district having eighty pupils, four teachers, and an assessed valuation of $140,000 made application to the WPA for aid in erecting a new building. The maximum funds that could be raised by the district for construction purposes were $7,000. This board requested funds to erect five classrooms cost-

[3]Viles, N. E., "Federal Aid for a School Rehousing Program," SCHOOL BOARD JOURNAL, March, 1934, pp. 29–30.

(Continued on Page 76)

Keeping the School Door *Slamless*

Norman Andrus[1]

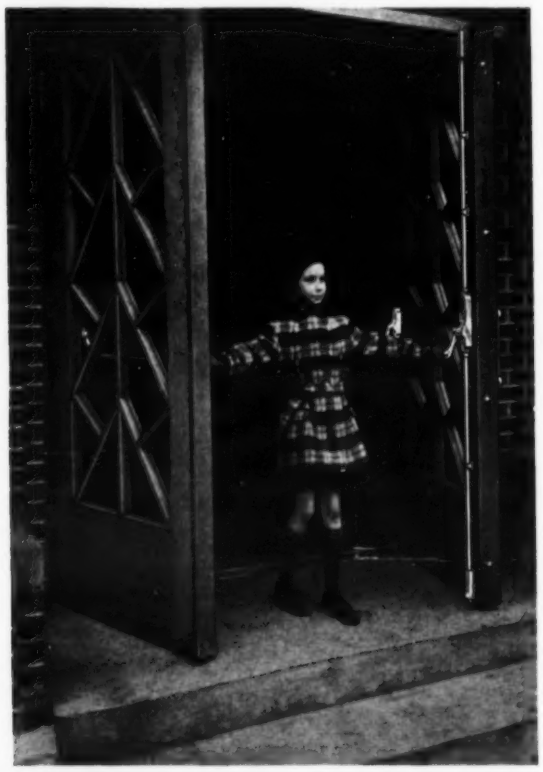
The summer months offer an opportune time to modernize and "check up" on the school building and its equipment to insure utmost efficiency in operation during the school term. In such a "check-up," the door, obvious as it is, may be easily overlooked and neglected. Yet, doors improperly controlled and fitted with worn hardware often result in high fuel costs, as well as inconvenience and noise from slamming.

Before 1878, people allowed doors to slam behind them, unconscious of the fact that a device could and would be developed to control the closing of doors — quietly but surely. As in the case of many other indispensable devices, the principle of the first door closer was discovered by chance. A minister had been annoyed by the slamming of the church doors during his services. This disturbance, caused by drafts, bothered him to the extent that he consulted a member of the parish and owner of a machine shop, Mr. Lewis C. Norton, and asked the latter for some means of controlling the noisy doors. After working on the problem without finding a solution, Mr. Norton one day gave vent to his feelings by kicking shut a closet door. The door did not slam, because, as Mr. Norton observed, the air pressure in the windowless closet cushioned the door's closing. This simple fact became the principle on which the early air checks were developed.

The first door closers were operated by a spring which forced a piston to compress air in a cylinder. The air escaped through a hole, the size of which was regulated by a screw. These early closers served the purpose of preventing slamming, but they had their faults. Experiments were continued and improvements made until today efficient, smooth-working closers are available, which not only firmly and noiselessly and at any desired speed close the door, but which can be regulated to hold the door open at different angles.

Manufacturers of door closers are agreed that their products get harder usage in school buildings than in any other type of structures. Children will be rough; they will jerk and push doors heedlessly, so that even the stoutest doors and the best of hardware will show the results of a year or two of usage. The most competent business managers and superintendents of school buildings are agreed that school doors require frequent inspection and close attention. It is a necessary duty of good management to inspect the door closers at least annually to make sure that they are in good working order for the service of which they are capable.

[1]Assistant Sales Manager, Norton Door Closer Company, Chicago, Illinois.



THE SCHOOL DOOR MUST OPEN EASILY FOR THE SMALLEST, SLIGHTEST GIRL

Typical Points for Inspection

Are the closers handling the doors smoothly and evenly? If not, there are a number of reasons for jerky, slamming doors. It may be the condition of the door closers, but often the trouble lies in the hinges and latch equipment. Worn, sagging, or incorrectly placed hinges cause the closer to lose some of its efficiency. Weather conditions have an effect on closers, especially in the colder sections, and make the yearly inspection advisable even when there is relatively small wear.

The liquid-type door closer was first introduced about 1900. Until recently, one of the major problems of this improved closer has been to prevent the liquid from leaking. For many years the theory was that the packing would solve this problem. Present-day closers do not rely on the packing. Now, the packing nuts are designed to do the job entirely. The principal function of the packing is to prevent leaking while the closer is being shipped and handled.

Closely related to leakage has been the problem of the kind of liquid to use. There are two principal door-closer liquids. One is a mixture of glycerine and alcohol in equal proportions. Most manufacturers are still using this liquid. Its disadvantages are that the alcohol evaporates and the glycerine becomes thick and gummy. This naturally retards the action of the closer and eventually makes a complete overhauling necessary. The principal advantage of this thick, gummy liquid is that it does not leak, so that the closers need not be machined and fitted as carefully.

The second liquid, which is commonly used, is a light mineral oil. The oil must be free of all impurities and of a type that does not evaporate or change in consistency even after years of use. This oil also serves as a lubricant and makes the working parts of the closer last longer. In the past the main objection to oil has been the difficulty of keeping it inside the closer. During the first years of its use, it came right through the castings; it leaked around the end plugs and up the shaft. The manufacturers who use mineral oil have now overcome this difficulty, and the closers are positively leakproof.

Further Inspection Points

Is the closing speed properly adjusted? If not, can the closer be regulated, or is it in need of repair? Modern closers can be adjusted to handle the speed by a simple manipulation of setscrews. Here again, it is important to look over all the hardware on the door to note its effect on the action of the closer and the operation of the door. The new closers can be regulated to control the doors against strong drafts and wind. It is advisable to check the amount of spring power for closing the door. A door need not be too hard to open even though there is necessity of power to control the door against wind.

Are the closers equipped with holder arms which eliminate the necessity of hooks and blocks of various kinds? Would it be desirable to use the key type of regulating screws which prevent students from tampering with the regulation of the closers? Would it be desirable to control the door in opening to prevent damage to walls and desks when the doors are opened violently? Are the closers of the proper size recommended by the manufacturer for a given size of door? These are other factors to consider when making inspections and determining how to get the most efficient service from door closers.

When door closers need repairs, there are two ways of handling the work: The school-board's mechanics can do it, or the closers may be entrusted to the local hardware dealer who will either repair them or send them to the manufacturer. If the school board operates a crew of maintenance men, the work can be done economically in the school shop. A small stock of repair parts and a few special tools will be necessary. If more than one type of closers are used, several sets of tools and as many stocks of repair parts will be required. Definite recommendations cannot be made for a policy of school-shop repairs without giving consideration to local conditions.

But it should be repeated that the periodic inspection of door closers is essential for service and economy. If the closers are not working properly, everyone who uses the building is thoroughly aware of the fact. In most cases minor repairs and adjustments will remedy the situation, while in others it will be necessary to replace a worn closer with a new one. In the event of a replacement, it is advisable to buy from a reliable manufacturer and to buy the size of closer he recommends.

BOYS WILL BE BOYS, AND WILL HANDLE SCHOOL DOORS ROUGHLY

Panic Latches Require Inspection

Panic exit latches require even more frequent inspections than door closers. These devices are installed to provide easy exit from the building in case of fire or panic. If they get out of order and are not immediately repaired, they might as well not be there. No school official would want to experience the horror of having children trapped in a building during a panic or fire. To neglect facilities for easy exit is criminal. No schoolman expects to have a fire, but the records show that they are occurring in schoolhouses every day.

Manufacturers have put a great deal of time and study into the design and manufacture of these articles. However, like any mechanical device, certain parts are subjected to more strain than others and will eventually wear out. It is wise to make periodic inspections so that worn parts may be replaced before breakdowns occur. Then the school officials can be sure that the latches will function properly every time they are called upon.

One of the principal causes of trouble with panic devices is the fact that doors warp, sag, and shrink. These conditions cause the doors to get out of alignment, thus making it impossible for the devices to function properly. When making an inspection, the alignment of the doors is one of the first things to look for. In the case of double doors, the use of adjustable astragals will solve the problem of shrinkage and expansion. These astragals can be fitted to old doors and can be supplied on new ones. By means of a wrench the astragals are adjusted to compensate for either shrinkage or expansion, so that the doors will not bind on each other or have too large an opening between them. This results in a considerable saving of fuel in winter and also helps prevent the locks from being picked.

The threshold on exit doors should receive particular attention to see that they do not interfere with the free and easy operation of the doors. The latest designs in metal thresholds prevent rain and snow from being driven under the doors and yet furnish secure stops against which the doors are held securely by the door closers and panic devices.

Points of Inspection

These are conditions to look for and rules to follow in checking the devices:

(Continued on Page 71)

A *Century of Progress* in Schoolroom Seating

Forest R. Noffsinger

Seating

In the pioneer schoolhouses, the seats were made by splitting off a portion of a log, and putting pegs or feet in the round side. Writing desks were made by driving pins in the logs around the side of the house and laying on them a plank or puncheon. These seats and writing desks extended around two or three sides of the room next to the wall. Sometimes the benches were attached to the wall in the same manner as the desks. In the center of the room were places for the smaller pupils. In some schools, a platform was built around the three sides of the wall and out a few feet from it. The older pupils occupied the wall benches and the smaller pupils sat on the edge of the platform. Usually the benches were too high for the children's feet to touch the floor. There were no backs. The teacher's desk was often a board attached to the wall or a rough table.[1]

Perhaps the teachers themselves were sometimes responsible for the lack of adequate seating facilities. Note this interesting quotation describing an incident in Somerset County, Pennsylvania, in 1810.[2] "There were no desks in the old house at Mr. Keim's, and in order that this inconvenience might be obviated, the citizens of the neighborhood made a few tables of rough boards and put them in the room; but when the teacher (Mr. Turney) came, and found these tables in the house, he became indignant, and threw them out, stating that desks had a tendency to make lazy pupils."

By 1831, however, conditions in some sections had begun to improve. The report of the Common School System of Connecticut[3] recognized the evil effects of defective seating. The report stated that health should not be overlooked. "The small pupils are required to sit on benches without backs, and those who write, sit at desks quite too high. Both these evils result in great injury to the spine, and some of the internal organs of the body, which will sooner or later be felt, even if the cause should be unknown or forgotten. It is gratifying to find, however, that in some parts of the state, these evils are beginning to be remedied. Seats with backs are ceasing to be wondered at; desks which are much lower than formerly, and entirely separate from each other, are occasionally found; and the public sentiment is in many cases entirely in their favor, as it is obviously a matter of economy."

First Attempt to Improve Seating

But perhaps in no other phase of school housing was there development of principles so complete as in the department of seating at this early date. Mann[4] classified the prevailing practices in 1837 as follows: "single seats; ten or more pupils seated at one desk and on one seat; long tables at which pupils sit face to face; seats around the walls with wall for backs; desks attached to two or three walls and pupils seated facing the wall, with and without partitions between seats, and commonly known as the Connecticut plan. Mann stated that the seats and desks should be arranged in parallel lines, lengthwise with the room, with aisles between, with one pupil to a seat. He proposed a very modern practice, that of having the seats movable, but considered such a plan impractical. The front side of one desk might be arranged as the back of the next seat. Aisles between desks should be 18 inches wide. The desks should be 2 feet long, and not less than 1½ feet wide. The backs of the seats should be arranged to slope a little away from the pupils at the shoulder blades and the seats to incline a little, with the front part a little higher than the back, but so that no pressure whatever comes on the thigh bone where it crosses the edge of the seat. If the seats were too high Mann recommended that foot blocks be used. The desks should be at a proper elevation and the slope of the desk top should be such as to prevent pupils from maintaining the head and neck in a stooping position for any length of time. Desks placed too high would be likely to develop curvature of the spine. The edge of the desk, Mann stated, should be an inch or two above the bend of the elbow as the arm is hung nearly by the side. Mann also indicated that "the height of the seats and desks should, of course, be graduated, to fit the different sizes of the scholars; the smallest scholars sitting nearest the teacher's desk."

The prevalent opinion among teachers, according to Mann, was that seats on a level floor were preferable to those that rose on the sides or end of the room or both in the fashion of English schools. The top of the desk ought to be level for a distance of 3 or 4 inches, then inclined toward the pupil at a slope of 1½ inches to the foot, but not an incline sufficient to cause books and slates to slide off. Ink stands could be set loosely in the level part of the top, with the top of the inkstand on a level with the desk top. The inkstand should be covered with a metallic lid to rise and fall or to slide on and off.

There should be a shelf under the desk, or what Mann considered more preferable, the desk could be a box, the sloping part of the desk top forming the lid for the box. Sometimes locks and keys were used on such desks, but to such practice Mann was opposed. Olcott's desk, described by Mann, had a case under the level part of the desk top which served as a lid. The compartment was about 8 inches wide and deep enough to hold the largest books, a special part being partitioned off for the slate. A prize-winning desk of the period was designed with a closed compartment under the desk top, and open at the end. The edges of the desk and the seat were in a perpendicular line. The difficulty of crowded aisles when double desks were used was eliminated by this plan, for a section of the left side of each seat was cut away, leaving space for the pupils to stand without being in the aisles.

Seating Arrangements

As to seating arrangement, Mann stated that the seats should be so arranged that the teacher could see the whole school at one look, that there should be easy access to each seat by every pupil, without disturbing or being disturbed by any other, and that the temptation to communicate or play should be removed by the seating arrangement insofar as it was possible. Mann recommended a space of at least 2½ feet all around the walls.

For the teacher, there should be, according to Mann, a suitable desk on a platform where the teacher could see all the pupils and, through a window, overlook the playground. In large schools the platform could be entirely across one end of the room.

Potter and Emerson in 1842[5] set up more definite standards for some of the principles stated by Mann and made some modifications of the principles themselves. They stated that the teacher's platform should be 8 inches high and 7 feet wide, with a space in front of the desks of from 7 to 8 feet in width. Definite standards for seat sizes were set up. The front range of desks should be 13 inches wide and 24 inches high with seats 10 inches wide and 13½ inches high. The next two ranges should be 14 inches wide and 25 inches high with seats 11 inches wide and 14 inches high. The next two ranges should be 15 inches wide and 26 inches high with seats 11½ inches wide and 15 inches high. The two ranges most remote from the front of the room should be 16 inches wide and 27 inches high with seats 12 inches wide and 16 inches high. All edges and corners of desks and seats should be carefully rounded.

Even with these very definite principles clearly established and recognized by authorities, yet practice loitered far in the rear of theory. The New York school report for 1840[6] complained of seats and desks too high for small children. In 1844, the New York visitors' stated that of 9,254 schools in the state investigated only 3,282 were suitably furnished with convenient seats and desks. The 1841 Cincinnati school report[8] criticized the desks and seats in use in the primary schools of the city as being too high and without backs. The Connecticut school report for 1846[9] stated that in many schools there were only slab seats, arranged on the Connecticut plan, with the writing desks placed around the room against the wall so high that they would be inconvenient for adults to use. The Rhode Island report for 1845[10] claimed that many of the seats were over 18 inches high with no seats lower than 14 inches high even for the little tots. The seats and desks were built for more than two pupils. The Connecticut report for 1848[11] again criticizing the Connecticut plan, stated that "every schoolhouse ought to be provided with a single desk for each pupil." The Michigan report for 1847[12] gave a classification of the seating practices of the state and pointed out the defects of the various arrangements. One of the types of desks used at this time was constructed with close fronts extending to the floor. Such desks, according to the report, prevented free circulation of air and therefore resulted in the children having cold feet, unless the room was kept too warm. Other criticisms offered were too high seats and desks, no back to the seats, and inclined floors. The Indiana school report of 1852[13] described the seats in some Indiana schools as being "narrow puncheons, scarcely better than rails, so high that with their utmost capacity of stretching the feet cannot be induced to touch the floor."

The Indiana report also set up a list of standard sizes similar to those proposed by Potter and Emerson. There were seven sizes, ranging in height of chair from 9 to 16 inches and in height of desk front from 17 to 28 inches. Seats should be arranged to produce the highest degree of comfort and most free and easy position of the body. The comfort of the seat, the report stated, depended upon its height from the floor and the height and shape of the back. Desks should be made from hard wood, neatly finished, and painted or varnished. The report recommended single seats and approved the Wales and Kimball type with iron standards.

New Seating Principles

The seating principles set up by Barnard[14] included the following: (1) sizes adjusted to the size of the occupants, (2) seating adjusted to the purposes and methods of instruction, (3) facility of access for pupils, (4) ease of supervision by the teacher, and (5) facility for sweeping and keeping the room neat. Barnard gave rather minute details for the construction of desks. Wood standards were most commonly used. These were to be fastened firmly "by a strong tenon into the sleepers of the floor or into a shoe, which can be made of cast iron" and fastened to the floor by screws. Some manufacturing companies, however, were beginning to use cast-iron standards which were recommended by Barnard. The back support, Barnard claimed, "should rise above the shoulder blades, and should in all cases incline back as it rises, one inch in every foot." In the school building described by Barnard and erected during the period from 1846 to 1854 there seemed to be no uniformity or agreement on seating arrangement.

Burrowes, in 1855,[15] repeated many of the accepted principles of school seating given by earlier authorities. He described a new type of seat, one somewhat similar to the modern swivel chair, and stated that it had been used in the Lancaster, Pennsylvania, schools with considerable success for a period of four years. The advantages claimed for

[1]State of Pennsylvania. Report of the Superintendent of Public Instruction of the Commonwealth of Pennsylvania for the year ending June 1, 1877, pp. 26, 603, 300, 124, 593 (Lane S. Hart, Harrisburg, 1878).

[2]*Ibid*, p. 510.

[3]"History of Common Schools in Connecticut," *Barnard's Journal of Education*, 5: 146, June, 1858.

[4]Mann, Horace, "Supplementary Report on the Subject of Schoolhouses," *Life and Works of Horace Mann* (edited by Mrs. Mary Mann), Vol. 2, pp. 435-62 (Lee and Shepard, Boston, 1891).

[5]Potter, Alonzo and Emerson, George B., *op. cit.*, pp. 352-3.

[6]Barnard, Henry, *op. cit.*, p. 32.

[7]*Ibid.*, p. 29.

[8]City of Cincinnati. Twelfth Annual Report of the Condition of Common Schools to the City Council of Cincinnati, p. 18 (Daily Republican Office, Cincinnati, 1841).

[9]Barnard, Henry, *op. cit.*, pp. 17-19.

[10]*Ibid.*, p. 38.

[11]*Ibid.*, p. 22.

[12]*Ibid.*, pp. 41-42.

[13]State of Indiana. "Schoolhouses," *First Annual Report of the Superintendent of Public Instruction for the State of Indiana to the General Assembly*, pp. 298, 305-6 (J. P. Chapman, Indianapolis, Ind., 1852).

[14]Barnard, Henry, *op. cit.*, pp. 341-343.

[15]Burrows, Thomas H., *op. cit.*, pp. 29-31, 193-200.

the chair were that pupils might more easily leave their places and that, by removing the chair from its base, the cleaning and scrubbing of the floor might be facilitated. Burrowes also gave four desk sizes. The smallest size had a height of seat of 10 inches, height of the front of desk 21 inches, width of desk 12 inches, length of desk 17 inches, and chair space between desks 20 inches. The width of the desks increased one inch for each size while the other dimensions increased two inches for each size. Burrowes presented a plan of "staggered seating" proposed and patented by Woodcock and forgotten until the plan was revived a few years ago in the SCHOOL BOARD JOURNAL.

Adjustable seats were first introduced in 1863. *Barnard's Journal of Education* thus described the construction of the first chair of this type:[16] "The seat is rigidly secured to the rod, *a*, which slides smoothly in the hollow cylinder, *b*, this cylinder being enlarged at its base and fastened firmly to the floor. The middle slat of the seat's back is lengthened downward and attached at its lower end to a projection from the rod, *a*, which passes through a vertical slit made in the cylinder, *b*, for that purpose; this slit being of sufficient length to allow the arm to slide up and down with the rise and fall of the seat. The seat is secured in any position by a setscrew. The desk is also made adjustable in height by a similar arrangement; the footrest being supported on an arm which is fastened to the sliding rod, and passes through a slit in the cylinder or stand."

The first indication that teacher's platforms were not necessary in schoolrooms was given by Baker in 1870,[17] who stated that the only purpose served was for the "teacher and pupils to stumble over."

Previous to 1871, the seat boards on desks were either fixed, or arranged so that they would turn on a swivel. The Charter Oak School of Hartford, Connecticut, in 1871,[18] installed a new type of seat board, one which was hung on pivots so as to swing or fold up and down. This scheme found an immediate following and in 1874 the New Jersey State Superintendent[19] recommended that all seats be made in that style.

Perhaps the first really scientific study of school seating was quoted by Goodman in 1874 from the Fifth Annual Report of the Massachusetts State Board of Health.[20] The common attitudes of children after they had been in their seats for a half hour or more were observed and measurements taken of their legs under the knee and compared with the height of the chair. The attitudes observed were assumed by a 12-year-old boy, who, without clothing, was photographed, to show the effects of the position on the muscles of the abdomen and thorax and on the curvature of the spine. A skeleton was also made to assume the same positions and the results checked against the photographs of the boy. A new seat, designed to correct the defects in posture, was tried out and found by the photographs to remedy the defects observed. Goodman drew from this study the beginning of a new principle in school seating, the influence of the distance between the desk and the seat, but he did not indicate what this relationship should be. This idea was immediately recognized as important by the 1874 St. Louis school report,[21] which contained the statement that "it is of great importance that the desk and seat be sufficiently close together," and Lincoln, in a paper read before a New York conference of Boards of Health in the same year,[22] stated that "school seats are bad when the scholar can stand up between the desk and seat; because in such a case, the scholar in sitting has to bend forward very much in order to reach his desk. It is necessary to bring the lid of the desk somewhat over the edge of the seat."

The *Illinois Teacher*, in 1876,[23] proposed a novel method for determining the proper height for school seats and gave other details in the construction of seats and desks in the following quotation. "Make the seat from half an inch to an inch lower than one fourth of the person's whole height. Make the back from one to two inches higher than one fourth of the person's height. Make the desk (level) one sixth of the person's height above the front edge of the seat. . . . Incline the seat from the front downward one inch in one foot. Incline the back one inch in six, except the back of the seat next to the wall, which should be about twenty-five inches wide, and slant one in five. The seat for the largest size should be full twelve inches wide, and the top (or lid) of the desk eighteen or nineteen. The end of all boards should project an inch over the standard, for firmness in nailing. Nailheads should not be set so as to require putty for children to pick out. Every projecting corner of the seat, back, and desk should be rounded to a quarter circle of a radius of three or four inches; every outer edge of the same to a semicircle."

Improved School Seating

Not only were the seats and backs inclined but, by 1880, according to Baldwin,[24] they were curved to fit the back of the child. So much study had been devoted to improving school seating that Baldwin was led to make the statement that "competition and science has given us seats and desks almost faultless."

The standard for the distance between the seat and the desk was not established by 1876 according to Kiddle and Schem,[25] who stated that "a considerable difference of opinion exists, some teachers considering only one inch necessary, others as much as three." But the State Superintendent of Ohio, in 1881,[26] suggested that a vertical line from the rear edge of the desk should strike the seat one or two inches back of its front edge.

In an article in the *Journal of Education*, in 1885,[27] the following were listed as recent improvements in school desks: curved backs, improved shape, adjustable standards, increased number in sizes in a graded series, box desk in connection with the seat, steel lid supports, dovetailing of wood and iron standards, continuous steel dowels, and adjustable footrests.

Newsholme, in 1889,[28] contributed to the literature on school seating by defining the technical terms used in connection with the subject. He defined "distance" as "the distance between the edge of the seat and a perpendicular line dropped from the edge of the desk," and said that the distance should be zero or a small negative quantity for writing purposes, and zero or a small positive quantity for other purposes. "Difference" was defined as "the difference between the height of seat and desk" and "should equal the length of the forearm or about one sixth the height of the scholar." The "slope of the desk," according to Newsholme, "should be capable of change, the proper angle being 30° from writing and 40–45° for reading." "The height of the seat should correspond to the length of the scholar's leg from sole of foot to knee."

Young, in the 1891 Maine State Board of Health Report,[29] gave some new seating standards. He said that the "height of the seat above the floor should equal two sevenths of the total height of the child," and the width of the seat should be "one fifth of the height of the body." With respect to the curve of the back, Young said that "American school seats may be classed under two leading forms: in one the back rises upward from the seat nearly perpendicularly and gradually curves backward as it rises. . . . As this gives a firm support to the sacral region, it is a much better shape than the other, which we may call the S form, which presents a concavity to the lower part of the pupil's trunk, and a convexity to the upped dorsal region. It fails to give support to the spinal column at just those points where support is most needed. In some seats with backs thus shaped, the lower curve is not great, but just so far as it exists it is wrong." Young described a number of adjustable desks and seats. One type had the usual type of uprights made of iron, but with the desk part on one side and the seat part on the other side, and so arranged that either part could be raised or lowered independently of each other. Another type was patterned after the type described. Both desk and seat were supported by a single pedestal so that either could be raised or lowered. A third point of adjustment was arranged at the angle between the back and the seat.

Dundor, in 1892,[30] presented a carefully prepared table showing the height of the desk, the height of the seat, the distance between the desk and the seat, and the distance between the edge of the seat and the edge of the desk, for children in eight height groups between the limits of 38.58 inches and below, and 68.90 inches and above. Dundor stated that "the elbow of the scholar should be just one half to one inch below the edge of the desk."

The Connecticut school report for 1896[31] recommended that "single desks should not be fastened to the floor, but to platforms or cleats." Flat tables and movable chairs were recommended in this report for kindergartens and primary schools.

A unique seating arrangement to secure the proper light for each seat in the room was suggested in the Ohio school report for 1897.[32] Unilateral lighting was assumed; the seats at the front of the room were placed at right angles to the window side of the room; each succeeding desk from front to rear was placed at a greater angle with the side until the angle of the back of the seat with the side of the room amounted to 45 degrees.

The Vermont Board of Health Report for 1897 disagreed with Young in regard to the curve of the seat back[33] favoring the S form with a "lower convex and an upper concave portion."

The best statement of the stage of development of school seating was given by Dresslar, in the California School Report, in 1899.[34] The first principle stated by Dresslar was that "all desks and seats should be disconnected, so that the seat for one pupil should be in no way connected with the desk for the one sitting immediately in the rear." The second principle was that "both seat and desk should be so made as to be capable of easy and ready adjustment with regard to height. It is not enough," Dresslar said, "to provide three, or at most, four sizes of desks for country schools; for in reality almost as many sizes are needed as there are children." The third principle stated that a seat when properly adjusted to a child should fulfill the following demands: (*a*) "The depth should be such that when in an erect posture his back would rest against the back of the seat, and at the same time the thighs given support along their entire length without crowding the lower legs. One fifth of the height of the child will measure the proper width of the seat." (*b*) "The height must be so adjusted as to allow the feet to rest squarely on the floor, and at the same time not to lift the thighs entirely off the edge of the seat. The proper height of the seat will be measured

[16] "Chase's Adjustable School Desk and Seat," *Barnard's Journal of Education*, 13:656, September, 1863.

[17] State of Pennsylvania. *Report of the Superintendent of Common Schools of the Commonwealth of Pennsylvania for the Year Ending June 6, 1870*, p. 88 (B. Singerly, Harrisburg, Pa.).

[18] "Plan of Charter Oak Schoolhouse, Hartford, Conn." *Barnard's Journal of Education*, 23:663–6, 1872.

[19] State of New Jersey. *Report of the State Board of Education and the State Superintendent of Public Instruction for the School Year Ending August 31, 1874*, p. 29 (William S. Sharp, Trenton, 1874).

[20] Goodman, J. S., "The Relation of Schools to Health," *Second Annual Report of the Secretary of the State Board of Health of the State of Michigan for 1874*, pp. 63–87 (W. S. George and Co., Lansing, 1875).

[21] City of St. Louis. "School Hygiene," *Twentieth Annual Report of the Board of Directors of the St. Louis Public Schools for the Year Ending August 1, 1871*, p. 116 (Democrat Lithographing and Printing Co., St. Louis, Mo., 1875).

[22] Lincoln, D. F. "A Report on School Hygiene," *Journal of Social Science*, 7:263, September, 1874.

[23] Hodgins, J. George, *The Schoolhouse: Its Architecture*, pp. 205–6 (Copp, Clark and Co., Toronto, Ont., Canada).

[24] Baldwin, Joseph, *The Art of School Management*, pp. 38–64 (D. Appleton and Co., New York, 1881).

[25] Kiddle, Henry and Schem, Alexander J., *op. cit.*, pp. 763–4.

[26] State of Ohio. "School Buildings in Their Relation to the Health of Pupils," *Twenty-eighth Annual Report of the State Commissioner of Common Schools to the General Assembly of the State of Ohio for the School Year Ending August 31, 1881*, p. 44 (G. J. Brand and Co., Columbus, 1882).

[27] "Improvements and the Manufacture of School Furniture," *Journal of Education*, 22:389, December 10, 1885.

[28] Newsholme, Arthur, *op. cit.*, pp. 14–16.

[29] Young, A. G., *op. cit.*, pp. 270–282.

[30] Dundor, A. B., "Report of the Committee of Preventable Diseases and School Hygiene," *Eighth Annual Report of the State Board of Health and Vital Statistics of the Commonwealth of Pennsylvania, 1892*, pp. 594–607. Edwin K. Meyers, Harrisburg, 1893.

[31] State of Connecticut. "School Buildings and Ventilation," *Report of the Board of Education of the State of Connecticut, 1896*, pp. 193–194 (The Case, Lockwood and Brainard Co., Hartford, 1896).

[32] State of Ohio. "School Buildings," *The Forty-fourth Annual Report of the State Commissioner of Common Schools to the Governor of the State of Ohio for the Year Ending August 31, 1897*, pp. 34–40 (The Laning Printing Co., Norwalk, 1897).

[33] State of Vermont. *Eleventh Report of the State Board of Health of the State of Vermont from September 1, 1896, to December 31, 1897*, pp. 32–33 (The Tuttle Co., Rutland, 1898).

[34] Dresslar, F. B., "Notes on School Hygiene," *Nineteenth Biennial Report of the Superintendent of Public Instruction for the School Years Ending June 30, 1899, and June 30, 1900*, pp. 39–43 (A. J. Johnson, Sacramento, Calif., 1900).

(Continued on Page 72)

A Program of *Testing* School Supplies

Richard H. Behrens[1]

Few privately operated enterprises, with purchasing and maintenance programs comparable to those of the average school system, are without means of conducting laboratory tests on materials which they purchase. While some materials lend themselves readily to evaluation by the unaided inspection of the experienced nontechnical man, selection of supplies and materials of construction upon any basis, other than that of objective evidence obtained in the laboratory must indeed be costly not only in cash disbursements, but also in efficiency.

The responsibility of selecting and evaluating materials and supplies in a large school system is generally delegated to a man whose professional qualifications are those of the business man rather than the technical expert. The purpose of these notes is not to suggest that the business man pick up a smattering of technology, nor the laboratory technician study business methods, but to outline briefly a testing program which may be worked out by the school purchasing department, in co-operation with the science laboratories of the high school, to their mutual benefit and that of the system at large.

A Practical School Program

The suggestions which follow are the outcome of the practical application of such a program of co-operation between the purchasing department of the Berkeley public schools and the industrial-science laboratory of the Berkeley high school.

Ordinarily, a testing laboratory adequate to handle the variety of tests required by the ramifications of school maintenance would require the investment of large sums of money and the services of skilled technicians. Most industrial testing laboratories adhere closely to standard methods of analysis, which involve expensive installments and considerable maintenance costs. This holds true especially in cases where definite specifications are involved and where such laboratories serve the producer. The school department, entirely in the situation of the consumer, is in the fortunate position of being able to determine which of any standard tests, or for that matter which tests, will serve the purpose best without regard to absolute requirements of standard tests.

The industrial-science laboratory of the Berkeley high school is equipped to carry out instruction in science for day-school boys and girls in trade and industrial courses, as well as for evening-school instruction in industrial chemistry for adults in technical occupations. The equipment, therefore, is adequate not only to perform all of the ordinary chemical analyses peculiar to general industrial chemical analysis, but also to provide instruction in materials used in the schoolroom, as well as in all phases of building maintenance. The equipment is inadequate for the performance of many of the standard tests of materials, but this does not prevent the laboratory from performing tests which are useful and sometimes more practical, with reference to the particular use to which the materials are to be put, than the more generally accepted tests of a better-equipped laboratory.

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Special Apparatus Necessary

A co-operative testing program such as is suggested here entails the design and adaptation of special apparatus. If the school is large enough to include a number of shops, such as machine, wood, electrical, and sheet metal, the problem of constructing and adapting apparatus is not a difficult one. A few examples will help to illustrate the possibilities.

A machine for testing up to 1,000 lbs. in tension was built by a machine-shop student for regular metal stock. This machine is adjustable to record with considerable accuracy as small a pull as 2 or 3 oz. This apparatus is shown in illustration 1.

Testing of school supplies and maintenance materials may require procedures generally classified as chemical, physical, and practical. Chemical tests are perhaps the most exacting and require the closest supervision by the instructor, in some cases they must be performed by him entirely. Physical testing, as a rule, is carried out more easily, and the practical test, generally testing in use under accelerated conditions, can almost always be carried out by the student, without help from the instructor.

Testing an adhesive may involve the determination of water content, of soluble matter such as dextrine, dextrose, and soluble starch, of insoluble matter, of reaction, odor, consistency, color, resistance to mold, time of set, and adhesive strength. Being largely chemical, these tests are best done by the student, under close supervision by the teacher, while the few tests which require some analytical skill are best done by the teacher alone. The physical tests may be carried out by simple comparative visual observation and by means of devices such as a strength-testing machine. The biological test of an adhesive may be made by simply inoculating the paste with mold spores and allowing them to incubate in a warm place.

In high schools where vocational printing is taught, the testing of paper may be carried out as a phase of vocational science. Tests for thickness, bulk, texture, grain, surface, cleanliness, opacity, tensile strength, folding strength, brittleness, ink-bearing qualities, erasure resistance, sizing, and ash may all be carried out with very simple ap-

FIG. 1. MACHINE FOR TESTING TENSION, BUILT BY STUDENTS

paratus to a relatively high degree of accuracy. A series of such projects was described in detail in an article entitled "Which Paper Shall I Use?" in the *Industrial Arts Magazine*, July, 1928, pp. 242–245.

The determination of the relative efficiency of two brands of refrigerators intended for service in one of the cafeterias of the school system may serve as an example of a practical test. The two refrigerators were placed side by side in the industrial-science laboratory and stocked with the same amount of ice. Temperature readings were made at intervals during 51 hours on the top, middle, and bottom shelves, and also of the air outside the refrigerators in contrast with the air inside them. Average maximum and minimum temperatures with the outside-inside temperature differentials were determined. To simulate maximum summer temperatures a tent to cover the refrigerators was made from a painter's tarpaulin, and the temperature within the tarpaulin raised to 90° F. and maintained for a period of six hours. On the basis of these tests, it was possible to evaluate the refrigerators with relation to ice consumption, and the safety of the temperatures maintained in the boxes.

Paper towels, extensively used in school systems, may easily be tested for their rate of absorption and their water-holding capacity. A simple trip balance, accurate to one tenth of a gram, and a watch constitute the equipment necessary to carry out such tests.

Some quantitative chemical tests may be required for the accurate evaluation of detergents. These, as a rule, should be performed by an instructor trained in the various phases of chemical analysis.

Tests on fuel oils and other petroleum products require fairly accurate apparatus and careful analytical work. A number of pieces of such apparatus may be purchased for a few dollars, a small investment when they can be used for the double purpose of teaching automotive science and analyzing samples submitted for use in the school system. A fairly accurate viscosimeter may be made in a good school machine shop.

Lead pencils may be tested for brittleness of lead with an ordinary trip balance: their comparative hardness and other characteristics important to the purchaser may be determined rather accurately by the supervised student, with the aid of a few pieces of apparatus made in the school shops.

Duplicator inks may be tested for tackiness, rate of drying, and spread in mimeograph paper.

Program Adapted to School Needs

The examples given above are merely suggestive of a program of co-operation which has been successfully maintained for several years between the purchasing department of the Berkeley school system and the industrial-science laboratory of the high school. Such a program is adaptable to the needs of various school systems, large and small, and to the training and experience of the instructor, and is doubly valuable to the community because of its educational and economic implications.

FIG. 2. STUDENTS AND INSTRUCTOR TESTING TWO ICE BOXES FOR COLD RETENTION QUALITIES

THE AMERICAN
School Board Journal
EDITORS:
WM. GEO. BRUCE WM. C. BRUCE

Recall Attacks on School Boards

IN MOST communities the choice of members for the board of education lies with the voters. Approval or disapproval of a continuation of the services of individual members is recorded at the regular elections. Those whose names are up for re-election will either win or lose in accordance with public favor or disfavor.

But the public here and there becomes restive and seeks to punish a board member for some undesired action by resorting to a recall vote. The member or members must be retired before the term of office has expired in order to make way for someone who will follow the will or whim of the moment.

These disagreements usually find their inception in an honest difference of opinion on policies in administration rather than on any violation of law. A board has seen fit to drop a superintendent, a principal or a teacher, or has transferred pupils from one school to another, in the belief that the change will benefit the school system. The public is actuated by an opposite viewpoint. It sees the case from the outside while the board sees it from the inside.

Who is right? Who is wrong? The assumption must be that the members of the board are fully informed as to the case in hand and at the same time fully conscious of the duty they owe to their office and to the community. Furthermore, it must be conceded that the complete facts cannot always be disclosed without public scandal or in milder cases without injuring the professional prestige of those eliminated from the service. In other words, the public cannot always know all the facts.

A recall campaign is quite in order where serious dereliction in office can be proved against school-board members. But it is not reasonable that a recall vote be resorted to in order to determine a mere question of administrative policy when the community and the school board have an honest difference of opinion.

One of the phenomena of the present time is to scrutinize the actions of public officials quite closely and to react toward them with more heat than intelligence. The recall movement directed to boards of education is merely one of the symptoms of a disturbed public mind. It is an unusual condition, indeed, that requires the drastic action of a recall in order to promote the true ends of education or safeguard the democracy of the schools. When the citizen has made his choice of a school-board member he should abide by that choice until the legal term of office has expired.

Superintendents or Boards of Education? Who Controls?

OCCASIONALLY the disagreements arising in the relations between a board of education and its superintendent culminate in a serious crisis in which one must surrender to the other. In recent years, these disagreements have grown largely out of the financial difficulties which have confronted the school districts. In brief, there have been decided differences of opinion as to what constitutes economy without sacrifice of essential school services.

The board of education, as a rule, reflects the taxpayer's attitude while the superintendent on the other is concerned with the extent and character of the educational program which he believes to be of prime importance. He may stress his position to the point where he encounters heated opposition and where even an honorable retreat becomes humiliating and embarrassing.

In a Michigan city just such a situation has resulted in the retirement of the superintendent. Here, the public was of the opinion that the schools were not managed with proper economy. The board of education, as reported by the public press, sided with the judgment of the community and sought reductions in school costs which seemed practical and without ill effects. The superintendent resisted these and brought to his aid the influence of the teachers' organizations. Then the board took matters into its own hands and found a solution of the problems by dropping the superintendent.

The incident has prompted the newspaper editors to ask the question: Who shall control the schools, the superintendent or the board of education? The popular answer is usually based upon secondary considerations and fails to enter into the true relations which govern the several factors in the school-administrative structure.

In the government of a school system, both the board of education and the superintendent perform their part within the function assigned to them. There is a complete dovetailing of the two. Thus, any question as to who governs the school system is predicated upon a wrong conception or an illogical situation. At best it must be said that under the established conceptions on the subject they jointly run the schools.

In fact, where the accepted principles in school-administrative procedure obtain, the question as to who bosses the schools cannot consistently be asked. The board of education is the legislative, judicial, and policy-making body, which delegates authority to the superintendent to administer the school system. Differences of opinion may arise between the board of education and the superintendent, but an observance of the scope and function assigned to each obviates the question as to who controls. They jointly control, manage, and administer the school system.

The Lowest Bidder on School Equipment

THE practice which has obtained for many years in the awarding of public contracts for school supplies and equipment to the lowest bidder, does not always result in securing the right product at an equitable cost.

The plan of letting contracts to the lowest bidder, under the aid afforded by the Public Works Administration, has recently revealed embarrassing and unsatisfactory results. The cause lies in the fact that the federal authorities have the fixed approach that price is the controlling element, while the school authorities have in mind the educational adaptability of the equipment bought. The price figure frequently defeats the element of instructional use.

Under the PWA rules, there must be three separate bidders, and the government director may lump the entire list of furniture and equipment needed for a given project into one contract. Thus, a single bid may include such wholly unrelated articles as seating, blackboard, window shades, laboratory furniture, lockers, playground equipment, etc. A given bidder may be the manufacturer of only one or two major articles named, and may be able to fulfill the contract only upon securing the remaining items from his competitors at a figure that will enable him to make a profit. The result is that, while the lowest bidder wins the contract inferior articles may and do find acceptance. For instance, a manufacturer of office furniture may bid on laboratory equipment, library furniture, etc. He wholly lacks experience in these special fields and must develop the framing, purchase the plumbing and other fittings, and provide the special finishes — all without experience or a clear understanding of what the school people desire. He can provide none of those refinements of design and construction which have grown out of experience and make for long wear, safety, and convenience. In situations of this kind, the school authorities, once having yielded to the government engineer's methods in order to secure the PWA aid, find the lowest bidder a detriment rather than a help.

The remedy must be found in the formulation of the original specifications. These must not only name the equipment required, but must specify the kind, quality, and form of construction in order to meet the purpose it is to serve. Thus, the lowest-bidder test must be hinged upon the exact equipment or article desired, in the light of its special school use, and the ability of the bidder to fulfill the contract.

It is all very well to accept federal aid, but such aid must not permit contractors to thrive on low bids, rather than on adequate service, and thus introduce into the schools inferior material under

the guise of modern school equipment. The worst of the situation is that the small communities are injured more often, and for a longer period of years.

Shall Teachers Attend School-Board Sessions?

IN SOME cities the representatives of the teaching force attend board meetings with considerable regularity for the purpose of keeping informed on the administrative labors engaged in. When necessary, they present petitions or recommendations affecting their interests. While the superintendent of schools is the official connecting link between the board of education and the instructional workers of the school system, and frequently their spokesman, it does happen that direct contacts may prove advantageous to both board and teachers. At least, this is the viewpoint which recently has found expression at school-board sessions.

The boards of education that have engaged in discussions as to the advisability of having representatives of the teaching profession at every board meeting have felt the desirability of first-hand information. It happens that problems arise in administrative deliberations when members desire that information or viewpoints be submitted which only the teacher is able to give. Here it is by no means intended to go over the head of the superintendent or supervising principal, but rather to couple the knowledge and judgment of the teacher with that of the chief executive.

There can be no doubt that situations may arise when the teachers' reaction rather than that of the superintendent may prove expedient. At the same time the proprieties of authority which must obtain here cannot be overlooked. The board of education cannot expect an orderly flow of business and full respect for the superintendent unless the professional workers carry on their business with the board through the superintendent. He must be their leader, their guide, and their spokesman. Conferences with teachers may throw greater light upon involved conditions and can do no harm if both the professional executive and his teaching staff holds to their own scope and functions. The information thus gathered must serve to clarify administrative policies rather than to encourage incompetent lay interference with teaching procedures on the one hand, or equally incompetent dabbling in financial and community education affairs by classroom workers on the other. There are those in the teaching profession who are quite capable of offering sound suggestions in the guidance of a school system; there are matters, too, which only the school board can legally and competently decide.

Whatever may be said about teachers in attendance at school-board meetings, their presence ought to be regarded as most welcome so long as it is a gesture in the direction of harmony and cooperation.

Considerations in Naming School Buildings

IT IS a fine custom, and one of high cultural value, which honors the memory of men who have rendered distinctive service to the nation. The naming of school buildings after great leaders excites an interest in the country's history and stimulates the spirit of patriotism.

While there can be no doubt as to the propriety of naming schoolhouses in honor of the nation's heroes, there may be wide differences of opinion as to the choice of a name. In the list of great characters there are statesmen and soldiers, scientists and philanthropists, explorers and pioneers. Which shall it be? The ideals and viewpoints of the sponsors must determine. While the names of Washington, Jefferson, and Lincoln still lead in new buildings, the names of Cleveland, Roosevelt, and Wilson have generously been used. Among the military characters of the nation, the memory of Grant, Sherman, Lee, and later Pershing, has been recognized. Edison, the inventor, has not been forgotten.

In recent years there has been a tendency to honor the memory of men of note in local history. Sometimes a pioneer is honored; again, it may be a philanthropist. Then, too, there is the schoolhouse that has been named after a citizen who has rendered notable service as a school-board member. In a number of instances, the memory of a superintendent, a principal, or even a teacher who had taught school for a half century or more has been honored.

Controversy as to the choice of a name has arisen in the past and is bound to arise. Differences of opinion will always exist. Recently such a controversy arose in Boston. The board of education designated a pioneer of a past day. The soldier element championed the name of a young world-war hero. The board found it somewhat awkward to reverse its action. The name of a historic character was chosen.

Whatever differences of opinion may arise as to whether statesmen, warriors, or philanthropists should be recognized in the naming of schoolhouses, it remains that the custom of recognizing the nation's heroes is a laudable one. The cultural value which accrues therefrom to the rising generation cannot be ignored.

Life-Career Service in School Administration

II

COUPLED with the practice of scrutinizing the public service and the expenditures connected therewith is the increasing pressure in behalf of local talent and local interests. Since the onset of the recent depression, various pressure organizations have sought to secure economy in local governmental services and reductions in personnel, all for the purpose of lowering taxes. It cannot be said that this movement has had genuine public interest at heart. The motives have rather been individual and selfish and have overlooked the fact that the greatest economy in government results from adequate public service in every necessary field at the lowest cost consistent with efficiency.

In all the turmoil of recent years, politics has been playing a larger part in the selection of appointive officers of clerical help in public departments, and in fact of all public servants. The use of relief workers in WPA projects has not contributed to the improvement of efficiency in the public service, but has rather induced an attitude of negligence concerning expenditures for public undertakings. It has encouraged a disregard of the hard-fought principles of civil service which looked toward the employment of the most competent person for each public job.

There is a need in all public offices of a re-establishment or, where this has been lacking, of the first establishment of the principle of career service. Dr. Luther Halsey Gulick, director of the Institute of Public Administration, puts the problem rather well when he writes: "When we talk about developing career service in state and local government, we mean the transformation of the state and local appointive services so that public employment will become a lifework, an honorable occupation which one normally takes up in youth with the expectation of advancement, and pursues until retirement. This is the objective."

Of all departments of government in any city, the board of education is in the most favorable position to put all jobs at its disposal on a life-career basis. Teaching has been on this basis for many decades, and there is no reason why the business managership, the office of school accountant, the clerical positions, and even the janitorships should not be put on a career basis. Of all public bodies the school board is the farthest removed from party politics and is the most independent so far as the political organizations are concerned.

The board is essentially an agency of the state and not a department of the municipality. It can well set up standards as to age, education, mental and physical condition, training, etc., for the employment of all its nonteaching personnel. It can set up motives for good work in the shape of an adequate salary schedule with annual increases based upon efficiency and satisfactory service. There is ample material in the way of precedent and standards of work for such salary schedules.

A board of education can very well employ its nonteaching personnel on a trial basis for two or three years, and after that it can make each job permanent so long as the incumbent shows growth in efficiency and attention to duty. What has been done among the teachers can be done with the nonteaching personnel. Motives and methods of promotion leading to retirement with an annuity is another problem that deserves consideration and discussion.

Scientific Schedule Building—II

Ralph D. McLeary

The first part of this article explained in some detail the foundation work for building a high-school schedule of recitations by the use of a schedule-construction chart in which conflict entries are made as determined from a conflict chart when each section is placed. For this purpose symbols are substituted for the names of the various courses. In Part I the placement of single-section courses for a portion of an actual schedule was retraced step by step. In this second part the work of placing two-section courses will be similarly illustrated.

For a two-section course it is necessary to consider two periods at a time. There are fifteen different pairs of periods in a six-period schedule, such as periods one and two, one and three, and so on.

In a continuation of the work outlined in Part I, B_1 and B_2 are the next sections to be placed. Table II is one of the B columns from the schedule-construction chart (Figure IV), showing the conflict entries at the time the B sections are dealt with.

TABLE II. A "B" Column from Schedule-Construction Chart

Period	*Conflict entries*
1	
2	G, K
3	D
4	H_1, F, M
5	H_1, H_2, E
6	H_2, C

Since period one is open, it is considered in turn with others. Periods one and two will be satisfactory choices for the B sections because BK is a minor conflict. If both BG and BK were major conflicts, placement of B in periods one and two might cause unbalanced sections, due to the fact that all pupils taking either G or K would have to take B in period one. With periods one and two chosen for B, the B symbol is entered in those periods throughout the schedule-construction chart (Figure IV) in the columns headed by the symbols with which B conflicts. Entries are made even in such columns as C and D, which have already been placed, to take care of the possible need of changing some placements at a later stage of the work.

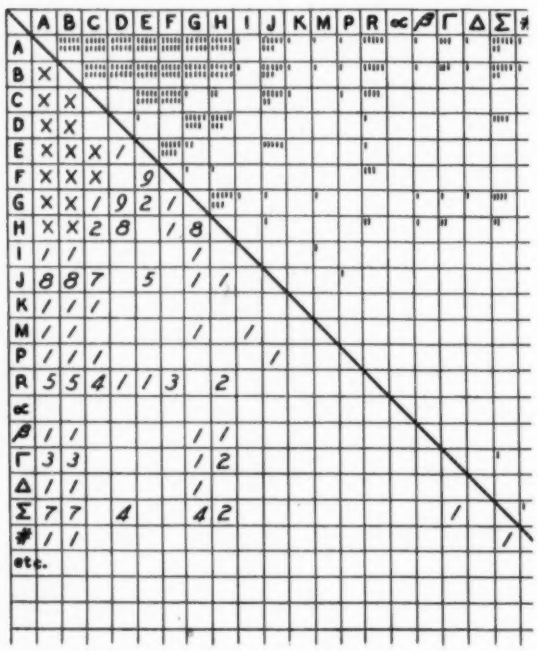


FIG. II. CONFLICT CHART

The placement of A_1 and A_2 illustrates a technique for the placement of multiple-section symbols which must be used when there are no periods free from conflict entries. In considering any two periods for entering a two-section course, a study of the conflict entries in these periods will show what combination or combinations will close both periods together. These combinations will be made up from what might be called the *closing entries* for each of the two periods. It is well to distinguish carefully among the terms *conflict entries, closing entries,* and *closing combinations* as used here. The entries in the columns of the schedule-construction chart (Figure IV) are referred to as *conflict entries.* Table III shows the conflict entries in the A columns at the stage of the work when the A sections are being placed.

TABLE III. An "A" Column from Schedule-Construction Chart

Period	*Conflict entries*
1	B_1
2	G, K, B_2
3	D
4	H_1, F, M
5	H_1, H_2, E
6	H_2, C

From a study of the conflict entries it is possible to make up a table of *closing entries* for each period. Such a table is given in Table IV for the A course. The accompanying limiting numbers are found from a study of the conflict chart (Figure II) as will be explained below.

TABLE IV. Closing Entries and Limiting Numbers for A

Periods	*1*	*2*	*3*	*4*	*5*	*6*
Closing entries	BK-1 BG-10	G-10 K-1	D-10	F-10 M-1 CH-2	E-10 H-10	C-10 FH-1 HM-0

It is easily seen from Table III that K will close period two. A little study will show that BK will close period one, the K throwing the B into the first period. Similarly with the G in period two and the BG in period one. Similar considerations dictate the making of the FH entry in period six, the CH entry in period four, and the HM entry in period six. The D in period three, F and M in period four, E and H in period five, and C in period six should be obvious.

The *closing combinations* for a pair of periods are those combinations which will close both periods together. Such combinations are found by combining the closing entries for the two periods. For example, if BG closes one and D closes period three, BDG will close periods one and three taken as a pair. Knowing this, the tabulation of combinations (Table I) may be searched for ABDG, which, if found there, indicates that periods one and three cannot be chosen for the placement of A_1 and A_2.

Obviously if we should try to make up and test all possible combinations for every pair of periods, we would find it a very laborious task, though it would answer the purpose. However, the work can be made relatively simple and short by using the conflict chart and a little care in picking out the sets of periods to be tested first.

The first step in this simplification of the work involves the use of the conflict chart to find what might be called limiting numbers for the closing entries and closing combinations. These limiting numbers are given in Table IV after each symbol or set of symbols. They show the greatest number of times the combination may occur according to the conflicts tallied on the conflict chart. For example, since an examination of the AB, AK, and BK conflicts shows one as the smallest (AK and BK), the limiting number for BK as a closing entry for A is one. AB, AG, and BG all show ten tallies on the conflict chart so the limiting number for BG is ten (meaning here ten or more). For the CH in period four we get a limiting number of two, for although there are ten or more tallies for AC and AH, there are only two for CH. HM in period six has a limiting number of zero and therefore may be disregarded because there can be no AHM combination. This may sound complicated, but after a little study and practice it can be worked out about as fast as one can write down the symbols and numbers.

The limiting numbers for the closing combinations of any size may be found easily and rapidly by following the order used in tallying the conflicts. For the combination BGHJM, for example, we follow the B row (Figure II) across to G, H, J, and M, noting the smallest number of tallies. We now follow the G row to H, J, and M. If a still smaller number is found, we note it. We now follow the H row to J and M, and the J row to M. The smallest number of tallies found is the limiting number. Of course when a zero is found one need not look further.

From an inspection of a table of closing entries one can see that it is a good idea to deal first with the sets of periods involving the fewest closing entries. In the case of A, which is being considered here, period three stands out suggestively because of the single closing entry, D. Therefore we try the sets of periods one and three, two and three, three and four, three and five, three and six. For each of these we get the closing combinations and corresponding limiting numbers as shown in Table V.

TABLE V. Closing Combinations and Limiting Numbers for "A" for Certain Periods

Periods 1 and 3	ABDK-0; ABDG-9
Periods 2 and 3	ADG-9; ADK-0
Periods 3 and 4	ADF-0; ADM-0; ACDH-0
Periods 3 and 5	ADE-1; ADH-8
Periods 3 and 6	ACD-0; ADFH-0; (we disregard HM because of its limiting number of zero)

It can be seen immediately, without reference to the tabulation of combinations, that periods three and four or three and six are open to A. The other sets, however, can be tested by checking with Table I. Incidentally none of them tests open. In periods one and three, for example, ABDG is found to be a combination which has been elected by one or more pupils. As a matter of fact, out of the possible fifteen pairs of periods, only the sets three and four, and three and six are open. Periods three and four are chosen, and the conflict entries for A are made.

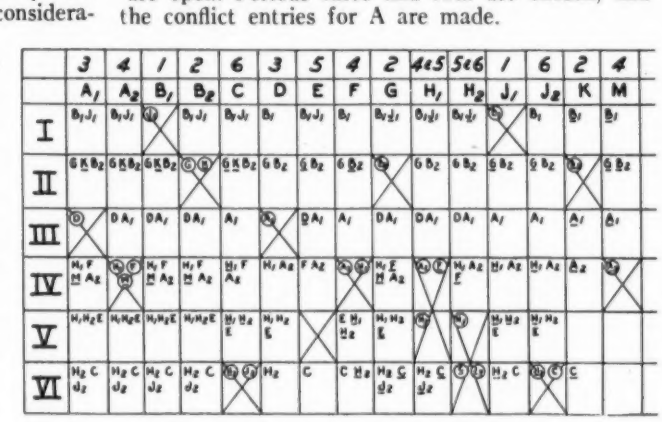


FIG. IV. SCHEDULE CONSTRUCTION CHART
(Minor Conflict Entries Are Underlined to Denote Different Color.)

For further illustration the calculations for J are given here. In the original situation J was a lower-grade course (not primarily for college-preparatory seniors), therefore only a portion of the J conflicts are shown in Figure II. Table VI represents a J column in the original schedule-construction chart.

TABLE VI. A "J" Column from Schedule-Construction Chart

Period	*Conflict entries*
1	B_1
2	B_2, G, K, Q
3	A_1, D, L
4	A_2, M, H_1
5	E, H_1, H_2
6	C, H_2, O

The original table of closing entries and limiting numbers for J is shown in Table VII.

TABLE VII. Closing Entries and Limiting Numbers for J

Periods	*1*	*2*	*3*	*4*	*5*	*6*
Closing entries	BG-1 BK-1 BQ-0	G-1 K-10 Q-2	D-6 L-10 AM-1 AHO-2 ACH-2	M-10 AD-6 AL-0 CH-2 HO-2	H-10 E-5	O-2 C-7 HM-10 AHL-0 ADH-0

(Concluded on Page 72)

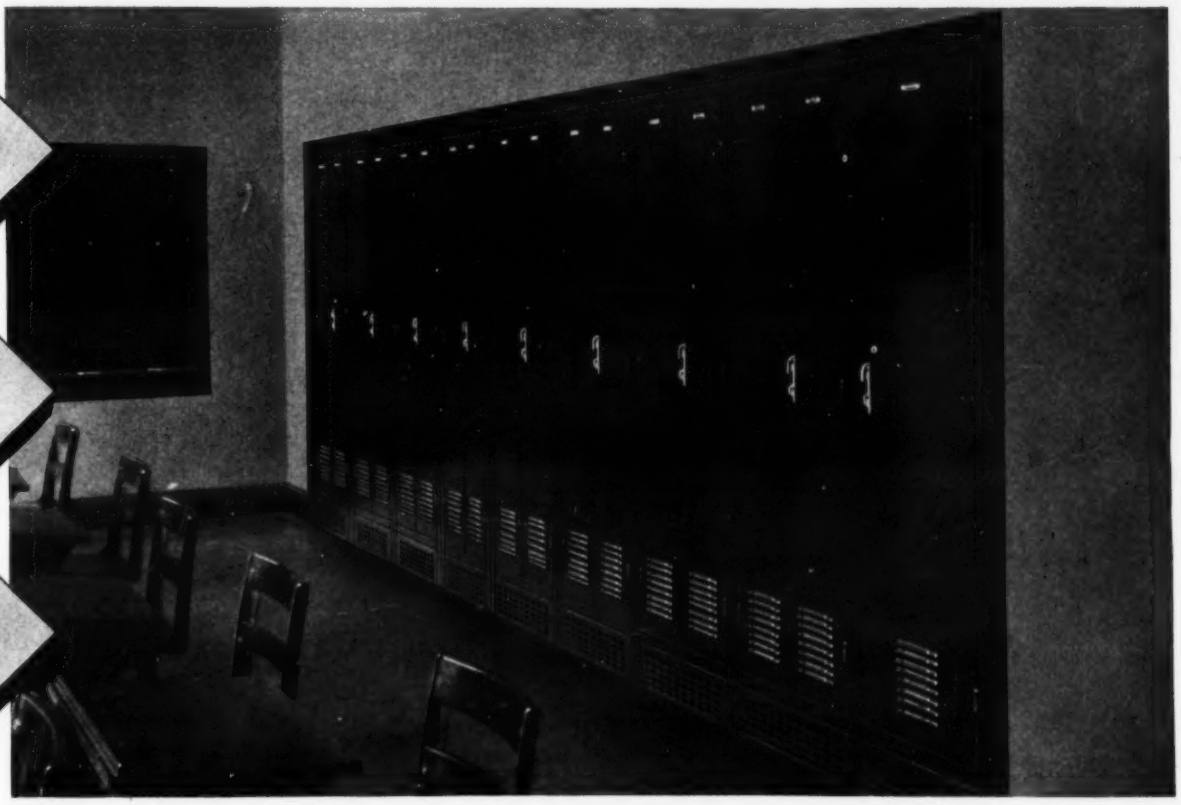
now An Efficient and Economical Answer to the Elementary School Wardrobe Problem

A-S-E WALL-ROBES

SINGLE LOCK CONTROL

INDIVIDUAL DOOR OPERATION

BIG ECONOMY IN BUILDING COSTS



Solve the wardrobe problem for small school children with new A-S-E Wall-Robes. They are completely efficient. Doors controlled by one master lock, but *operate independently*—avoiding confusion, noise and delay caused when all doors must be closed or opened at one time.

GREATEST ECONOMY

A-S-E Wall-Robes are the most economical method yet developed! First cost is moderate. They outlast other types. They save big sums on building costs because they require less wall thickness for recessing, and recesses need only be roughed in.

IMPORTANT FEATURES

They have handsome streamline handle, modern louvers, torpedo-type hinge, moulded rubber silencers for quietness in closing doors. In every detail of construction, A-S-E Wall-Robes are head and shoulders above the field.

NEW BOOKLET. Send today for the new 8-page booklet on A-S-E Wall-Robes, giving specifications and layout details.

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606 JOHN STREET AURORA, ILLINOIS

The *Sound-on-Film Projector* and the School Program

F. M. Worrell

"What advantages are possessed by the sound projector that can't be equaled by a silent projector in the hands of a capable teacher?" was a question asked by a member of the local school board when the plea was made for the installation of a modern sound-on-film projector to replace the worn-out silent machine previously used.

"Is it not true that the 16-mm. sound projector is still in a stage of development, and would it not be better to wait until it passes from an experimental to a completely refined and perfected machine?" inquired another interested but dubious member.

Then, after a pause, the key question was advanced, "Is the sound projector worth the difference in price?"

As I pondered these questions, I recalled the results of an experiment, made last year, in large-group instruction through the use of visual aids. (The program was an elaborate one and involved the use of over 150 films, both sound and silent, covering the fields of science, geography, music, appreciation, and English. A sound projector, loaned by a prominent educational film producer played a key part and contributed immeasurably to the ultimate success of the experiment.)

My findings led me to make the following statements in support of my recommendation:

a) Although as much discrimination as possible was made in selecting films, experience showed that the silent films are, for the most part, not specifically designed for teaching purposes. The titles are misleading. The contents are not built around well-defined central themes. Much of the material has no bearing on the work being done in class. Facts are presented with little thought as to the proper psychological order. Captions are few and the important points are seldom emphasized.

Such films, in the hands of master teachers, might be used to some advantage, provided time was given for the teacher to study the contents in advance, and plan a monologue which would emphasize the valuable, and subordinate the irrelevant, material. Unfortunately, due to deficiencies in personality or training, this type of teacher is too infrequently found, hence —

Advantages of Sound Projector in Classrooms

A film, to be used to an advantage in the classroom, must be planned and produced from a pedagogical viewpoint and adapted to the teaching of some specific problem by a master teacher, if it is to be effective in the hands of the average classroom teacher.

b) Almost invariably the sound films used measured up to this requirement. They are organized around some central problem and the contents are presented in a logical, clear manner. The monologue is developed by a master teacher, a specialist in his field, and is presented in such a way that each fact, as it is pictured on the screen, is described, or explained, and due emphasis placed where most needed. At least for the period these films are being used, the pupil is experiencing the best in teaching technique.

c) The sound film is invaluable in the teaching of music appreciation or similar studies. Excerpts from the lives of great musicians, as pictured on the screen, accompanied by sound effects, made up of selections from their masterpieces, remain indelibly fixed in the memory of the student. These qualities, alone, make the sound film superior to the silent film.

Provides for Extracurricular Activities

d) Aside from its value in the classroom as a source of entertainment, in conjunction with student-organization activities, the sound film is the most acceptable to the pupils and, therefore, guarantees a larger financial return to the organization. I believe I would be justified in saying that the revenue from motion-picture shows, run by the student organization last year, supplied at least fifty per cent of the funds required to finance the extracurricular activities of the school.

e) Although the silent films, rented or borrowed from film libraries gave considerable trouble, due to breaks and faulty repairs, I cannot recall a single case of a break or imperfection in a sound film used — implying that the sound film is subjected to closer scrutiny and neater repair by the distributing library. This is an important factor, especially in large-group instruction.

f) When no sound film is available, the sound projector may be used in showing silent films. If a microphone is used in conjunction, the teacher may transform the silent into a sound production.

Aside from actually showing films, the sound projector may be used for many other purposes in the school program.

1. Pupils enjoy giving reports, recitations, etc., through a microphone to large groups. The use of this instrument requires clearness of enunciation and pronunciation and acts as a valuable motivation in training for public speaking.

2. In conjunction with a victrola attachment, the sound projector may be used to furnish music for assembly programs, or for dances, offering, thereby, the best of music at a low cost.

As to the degree of its perfection, I might make this statement: Mechanically it is as perfect as any silent projector. The quality of its projection and the cost of its maintenance are comparable. The sound reproduction, in a good machine, equals that of a theater projector. It is not perfect, and doubtless, over a period of years improvement will be made, but the same can be said of any piece of mechanism.

Although its initial cost is greater than that of a silent projector, if calculated in terms of satisfaction and usability, the difference is negligible.

We must remember that the films designed for use with this equipment are planned especially for classroom use. They place at the teacher's disposal one of the best teaching tools yet devised.

The trend in film production is toward the sound film.

Where sound films are not available, silent films may be shown.

The sound projector may be used for a variety of purposes.

The cost is not prohibitive. Machines may be purchased on a time basis and paid for from the receipts of motion-picture programs.

[1]Director, Department of Visual Education, Englewood, N. J.

STANDARDS FOR DETERMINING THE SOUNDNESS OF SCHOOL-BUDGETARY PROCEDURES

Gerald M. Weller, Ed.D.[1]

The one major instrument of educational control in the superintendent of schools is the annual budget. It is probably not too much to say that as the budget is, so is the school system. In other words, the way in which the budget is planned and managed may be taken as a reasonably accurate indication of the type of school system maintained.

In order that superintendents and school boards may determine the extent to which the handling of their school-district budgets meets with the best accepted practice, the following set of questions is presented as a basis for a comparative study and analysis of local procedures. If a school system's treatment of budgetary matters agrees in general with the following check list of sound budgetary procedure, it can be reasonably certain that operations are conducted on a high level of educational and financial efficiency.

Budgetary-Practice Check List

1. Does the budget show a definitely conceived educational program as to objectives and organization? Is there co-ordination of educational costs and services?

2. Is there a definite plan for the preparation of the budget: Is there a work plan, a spending plan, and a financing plan?

[1]Boys' Vice-Principal, Audubon Junior High School, Los Angeles, California.

3. Has a budget calendar been carefully worked out?

4. Does the administrative staff have a complete check list of all items of expenditure?

5. Are there annual budgetary statements for all activities in which the schools are engaged, and are these analyzed in detail?

6. Are there uniform budgetary forms, and are items classified and arranged so as to be consistent with the accounting classification used?

7. Do budgetary estimates present comparisons with receipts and expenditures of preceding years?

8. Are there written justifications for increases and decreases?

9. Are all budget transfers a matter of record? Is there a reasonable degree of rigidity maintained?

10. Is there a definite and systematic check on expenditures to see that they do not exceed the appropriations? Are there budgetary controls for each ledger account as a check on expenditures?

11. Have budgetary standards been set up for service requirements and production; for services, materials, and payments; for consumption, quality, and use of materials and supplies; and for plant needs?

12. Is there data available, and have unit costs been determined for functional classification of services? Are there continuing graphs showing unit costs over a period of years?

13. Is there a publicity policy to keep the public in touch with budgetary needs, educational costs, and services rendered?

SCHOOL-BUSINESS OFFICIALS TO HOLD SILVER ANNIVERSARY CONVENTION

The twenty-fifth annual convention of the National Association of Public-School Business Officials, to be held in St. Louis, Mo., October 12 to 16, will be the silver anniversary convention of the association.

This convention, according to a statement of Secretary Cramlet, will form a milestone in the progress of the association, "It will not only mark the quarter-century birthday and silver jubilee of the organization, but will usher in a new era of progress and prosperity which is to abundantly attend the onward march."

The headquarters for the association will be in the Jefferson Hotel. The program for the meeting is being rapidly whipped into shape by President Paul H. Scholz. Nationally known speakers will participate. Experts in various fields will present papers on building construction, accounting, school-supply management, and office technique.

ANNUAL CONFERENCE OF SCHOOL-BOARD MEMBERS

The seventh annual Peabody Conference of School-Board Members and School Administrative Officers, as announced, was held June 11 to 13, at Peabody College for Teachers, Nashville, Tenn.

The conference discussions centered around the subject "Administering the Instructional Program to Meet the Needs of Pupils." Among the speakers who took part in the program were Miss Lucy Gage, Peabody College; Supt. Willis Sutton, Atlanta, Ga.; State Supt. J. H. Pope, Columbia, S. C.; Dr. Paul Boynton, Peabody College; Supt. H. F. Srygley, Nashville, Tenn.; Supt. Frederick Archer, Louisville, Ky.; Dr. A. E. Parkins, Peabody College; Dr. Walter D. Cocking, Nashville, Tenn.; and Dr. J. H. Highsmith, Raleigh, N. C.

PRIZE WINNERS ANNOUNCED

The International Business Machines Corporation, of New York City, has announced the winners in the second national prize essay contest, which was begun at the beginning of the year, to emphasize the part the school plays in the development of the power to think, to stimulate a deeper student understanding of the training for proper mental development, and to inspire an active interest in talents for creative writing. The nation-wide response from high-school students and the commendation with which the contest was received from school officials were interpreted as evidence of an opportunity for constructive service in encouraging more high-school students to complete their education, according to Mr. Watson, director of the contest.

The contest offered awards to the writers of the best essay in each state on the subject, "How Education Develops the Power to Think." A national award of a four-year university tuition scholarship at a college of the winner's choice was also offered for the best of all the essays submitted.

The national winner in the contest was Miss Evelynne Coe, a senior student in the Tularosa High School, at Tularosa, N. Mex. Miss Coe won in competition with more than 35,000 contestants from 1,500 schools in 48 states.

In JAPAN

MANY JAPANESE SCHOOLS AND METHODS ARE PATTERNED AFTER THOSE IN U. S. A.

With concentration thoroughly taught,
education is a natural sequence.

Royal

"THE FINEST SINCE '97"

Write for catalog of

MODERN SCHOOL SEATING

for

MODERN AMERICAN SCHOOLS

ROYAL METAL MFG. CO., 1143 So. Michigan Ave., CHICAGO—Also New York and Los Angeles

NEW DOCTRINE FOR MONROE

(Concluded from Page 30)

second we heard them pounding on the door, and then in they came, and still nobody saying a word, only Fred kinda motions to them to come up in front. . . . Gosh, I didn't mean to spill that stuff on the table cloth. . . .

"Well, the instant they saw everybody saying nothing but just a'looking at them, both hollered they wanted to apologize for what they'd done; but Fred told them they wouldn't be granted that privilege, and said they had to face the room. And then we had three speeches, and the speakers musta thought them up ahead of time, for they were the finest speeches *I* ever heard; and the worst of it was, everybody was so darned *quiet*. Honestly, I'd rather have taken a *million* lickings than a-took what those two guys did; and nobody bawled them out, either, and *that* made it even worse."

The parents of young Mr. Esmay, who were reduced by this time to a state of absolute amazement at the recital, waited while their son overcame a surprising huskiness that had crept into his voice; then he continued,

"The first one up was Mr. Peter Barron, and you know what a swell guy *he* is, always good-natured, and gives you a break every time he can. He made a wonderful speech. Boy, can he speak! He said he wanted to tell us a story he'd been reading just before he came to school, and it was about a fellow who thought he was a big shot and didn't give a hoot *what* he did, just as long as he thought he was having a good time, and said if anybody didn't like it they knew what they could do about it. Well, one night this bird was throwing a party, and it was pretty rough but it just suited him and the rest of the gang he had along with him; and just when the party was getting to be what he thought was pretty good, all of a sudden a hand appeared up on the side of the wall, and began writing some words nobody could understand . . . and then we knew what Mr. Barron meant when he 'old us that other folks had been tried in the balances and been found wanting, and asked us if we were willing to be found wanting; and we knew where he got his story, too. And when he sorta pointed with his finger at *our* wall, gosh; Honest, I was a-scared to look. I never *saw* anything so impressive. The only thing he said to those two fellows was, that they had been willing to try to tear down the banners of service all of us had been proud to raise in the name of the school; and that speaking for the faculty, he rebuked them. That was all; and there wasn't any applause, either. You wouldn't have clapped any more than you would in church."

"Upon my word!" ejaculated the elder Esmay, whose mind had flitted back thirty years to other scrapes in other schools.

"Yes; and the next speaker was Nan Taylor. You know she's captain of the girls' basketball team. She goes ahead to tell how hard we'd all tried to make a good school in Monroe, and how the girls had figured out if they stopped fighting among themselves, there'd be the kind of spirit we ought to have had long ago; and now, when we're beginning to get somewhere, this thing had set us way back where we had been before. And then, all of a sudden, she stopped; she tried to go on talking but she just couldn't, she felt so bad . . . she sat down mighty quick, and put her head down on the desk; gosh, dad, I'd rather a had *anything* happen to me than to have made her feel that way." . . . His voice trailed off. . . .

"My goodness!" exclaimed Mrs. Esmay. "What did those two boys do?"

"Well, first they tried to look nonchalant, and then one of them tried to smile, and then both of them started to turn their heads around toward the wall and not look at the room, but Fred Van Tassel told them to face the speaker, and they had to."

"Wasn't that going pretty far with them?"

"No it wasn't!" exploded young Mr. Esmay. "You don't *know* those two birds the way *we* do. Why, we're darned sure now they are the guys who kept pulling the football suits off the pegs in the locker room last fall and throwing them on the floor, so the coaches would get blamed by old Jack Tyrone for not being careful about the looks of things; and I bet you a hundred dollars he's at the bottom of it because he hates anybody who likes Mr. Hamilton. No, sir; it served them good and right, and don't *you* waste any sympathy on them.

"Well, the last speaker was Mademoiselle Armand; you know she's a real old lady, and nobody'd ever *think* of bothering her because . . . oh, well, you just *wouldn't*, I don't know why. She got up and said when she was just a young girl many years ago in her la belle France, she had always heard so much about the gallantry and chivalry of American boys, especially toward women, and how all their life she's believed it was true. And now she'd come to realize that her girlhood dreams were wrong; and she wouldn't try to say anything more for it was too great a disappointment, and she just couldn't bear it; but speaking as a very old lady who hasn't much longer to go on teaching, she rebuked them. And so *she* sat down, and there wasn't another word said for a long time, until Fred Van Tassel suddenly jumps up and says the meeting is adjourned, and we all go back mighty quiet to our rooms. . . . The very last thing I saw was Mr. Hamilton; he had his arm around one of those two boys, and when he saw me glance back he waved his hand at me to get out, and believe me, I beat it. I didn't mean anything that wasn't right, honestly I didn't; it was just accidental. Well, I bet you a hundred dollars I wouldn't do anything to hurt the school; that's just what everybody says. Nobody in school, unless he's *plumb* crazy would ever think of pulling off a thing like that again; O' course, he might fool around a little bit, but nothing serious, you know. We just won't stand for it, and believe you me, this school will stick together after this. And if anybody ever says a word *against* this school, I hope to tell you every kid in the place will take a good sock at him and I don't mean maybe, either. . . . Gosh, I got about a million lines of Caesar to get, and wish that old sucker had lost his pencil before he ever wrote all that stuff; he oughta have had a heart."

When the landing had been accomplished, once more via newel post as swivel, "Bill!"

"Say that again, father."

"Bill, I'm going down to Mr. Benkert's for a little while; and when I get back, maybe I'll have a little ice cream to ram down along with that Latin. What do you say?"

"*Bill* says," and the word was decidedly accented, "Bill says that will be swell."

As the elder Esmay stepped out on the porch, buttoning his coat, his wife followed.

"You called him 'Bill.' " And in her eyes was that wistful light which comes but once — at that time when a mother suddenly sees the new and hardly realized long vista of years ahead, that way to be walked by one no longer her little boy. . . . Glad? Of course; no one would have it otherwise. But just a little sorry? If your own boy has turned this corner and started out on that longer stretch before him, you know exactly what we mean; exactly why Mr. Esmay hesitated, cleared his throat for a second, and said,

"I guess I did call him 'Bill'; I hadn't thought of that until you spoke."

He was halfway down the steps, when he turned and came quietly back. "And he'll be a very fine man, too, my dear."

. . . Strange, how many other fathers of boys and girls in Monroe high school that night dropped in to see Mr. Benkert. . . . They all seemed to have the same errand. . . .

III

"But education is merely a matter of method; one must not forget that school is school."

We hope *we* haven't!

CO-ORDINATING STATE EDUCATIONAL BOARDS: THEIR ORIGIN AND FUNCTIONS

(Continued from Page 18)

of 1859 and 1860.[15] This recommendation was accepted, and in 1861 a separate board was placed in control of the college. A second normal school was established in 1895 and placed under the general control of the state board of education.

An important departure from the usual plan of administering teacher-training institutions was made by this board in 1899. The board created the office of "President of the Normal Schools of Michigan" whose occupant was the general executive officer for the three teacher-training institutions. The duties of this officer so far as the normal schools were concerned were comparable to those of the present chancellor in the educational system of the states of Georgia, Oregon, and Montana. Institutional competition led to the abandonment of this position in 1902 and to the appointment of local executive heads. The scholarly occupant of the office at the time of its abandonment was given a vote of confidence by the state board of education.[16]

Wisconsin. The board of normal-school regents in Wisconsin was created by the legislature in 1858. During the first eight years of existence the board followed the policy of subsidizing institutions with organized normal departments and of holding teachers' institutes in different parts of the state. The board subsidized seven normal training departments in as many institutions in 1854:[17] The law of 1866[18] conferred corporate rights and powers upon the board and authorized it to locate, establish, and equip normal schools. The

[15] *Twenty-fifth Annual Report of the Superintendent of Public Instruction,* page 13.

[16] Smittle, W. Ray, "The Co-ordinating Powers in State Systems of Education of Agencies Controlling Higher Educational Institutions," Dissertation, The Ohio State University, 1933, p. 284.

[17] Seventeenth Annual Report of the Superintendent of Public Instruction, December, 1864, pp. 99–100.

[18] General Laws 1866, Chapter 116.

(Concluded on Page 52)

GOODYEAR
DOUBLES UP ON SAFETY
for SCHOOL BUSES

GOODYEAR LIFEGUARD* TUBE

A Look for the yellow valve stem and blue cap.

B LifeGuards* take a little longer to inflate because air passes gradually from the "inner tire" to outer tube through this VENT HOLE.

C On this two-ply "INNER TIRE" you ride to a stop with bus under control, even though casing and outer tube blow wide open.

FROM Goodyear you can get double safety for school bus operation.

LifeGuard* Tubes are infallible protection against all blowout hazards.

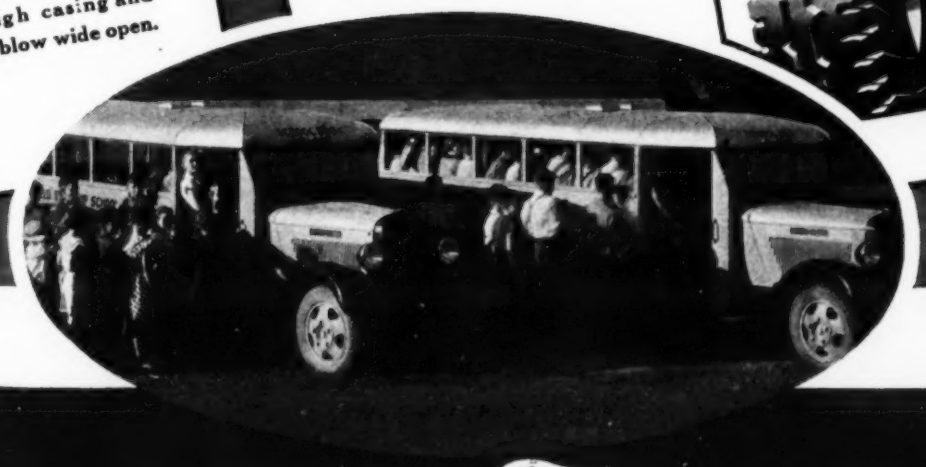
All-Weather tread is your greatest protection against the dangers of skids.

Specify Goodyear when purchasing new equipment. Specify Goodyears and LifeGuard Tubes if you contract.

In city school bus operation some amazing extra mileage records are being made with the Goodyear Stop-Start Tire. Designed for service where stops and starts have to be made every few minutes the new Stop-Start Tire has doubled—and in some cases—trebled—mileages operators obtained from other tires.

THE GOODYEAR TIRE & RUBBER COMPANY, INC., AKRON, OHIO

The New Goodyear Stop-Start Tire and the famous All-Weather (right).



*TRADE MARK REG., U. S. PAT. OFFICE

GOODYEAR
TRUCK AND BUS TIRES

In the Walnut Hills High School of Cincinnati, the architects specified a permanent natural product not only for blackboards, but for the roof and window sills as well.

Throughout the country designers of distinguished school buildings have looked far into the future and put into the structure only material that will give life-long service.

That is why "Pyramid" Natural Slate Blackboards have always been the popular choice. . . . They can be washed down with water and a little ammonia once a week, using a rubber squegee for drying.

Easy to write on, easy to erase and sanitary because it can be washed with water without harming its writing qualities . . . a "Pyramid" board should go in your school.

Samuel Hannaford & Sons, Architects; David Gordon, Cincinnati, Contractor.

Let us send you a copy of "BLACKBOARDS AND BULLETIN BOARDS"—as visual aids in education.

They Outlast the Building

CENTURIES OF SERVICE PYRAMID NATURAL SLATE BLACKBOARDS

NATURAL SLATE BLACKBOARD COMPANY

Department D, Pen Argyl, Pennsylvania

(Continued from Page 50)

organization, powers, and duties of the present board are substantially those conferred upon the board in 1866.

Minnesota. The legislature of Minnesota authorized the establishment of three normal-training schools in 1858.[19] The general control and management of these institutions was vested by the same act in the state normal board of instruction. The only change which has been made in the law since 1858, occurred in 1889[20] when the appointment of two additional members was authorized.

Maine. The legislature of Maine provided for the establishment of two normal schools in 1863.[21] The control of these institutions was vested in the governor and council, and the state superintendent of public instruction. However, apropos of the duties of the state superintendent, the law stated that "it shall be the duty of the superintendent of common schools to act as superintendent of normal schools; to employ teachers and lecturers for the same; and with the consent of the governor and council[22] to provide such apparatus and facilities for the operation of the schools as may be deemed necessary; the whole arrangement to be approved by the governor and council, who shall audit all accounts for expenditures in their behalf and draw their warrant for the same." A board of trustees was created in 1873[23] and given general control. Additional normal schools were placed under this board at the time of their establishment. The state superintendent during the period 1863–1873 exercised considerably more control over the state teacher-training institutions than is generally exercised by professional executive officers of educational boards.

Group V

Group V includes the states of New Jersey, North Carolina, and West Virginia. The three states of this group have established agencies for co-ordinating the work of specific educational units that are distinctive to the state.

Public higher education in New Jersey, other than undergraduate teacher-training, is controlled by the state board of regents created by law in 1929.[24] The functions of the state board of regents are unique in state educational administration. It is charged with the sole responsibility of determining the state's needs in connection with public higher education and of ascertaining the extent to which such needs are being met by the existing institutions of higher learning in the state. It is directed to purchase from privately controlled institutions, located in the state, such additional services as are needed by the people subject only to the legislature through its power to grant, refuse, or modify budget requests. It is prohibited from contracting with religious institutions. The separate teacher-training institutions in New Jersey are controlled by the state board of education.[25]

North Carolina. The State of North Carolina has placed the three major institutions of higher learning under a single board. Each of the five remaining institutions is under its own board. The public-school system is supervised by the state department of education. The co-ordinating board of trustees governing the Consolidated University of North Carolina possesses all of the powers and duties that were formerly exercised by the three separate boards.[26]

West Virginia. In this state one financial agency and one education agency administer public education, with the exception of West Virginia University.[27] The state board of control has full charge of the charitable and penal institutions and of the business and financial affairs of all educational institutions. The state board of education which replaced the former state board of regents, in 1919, has general control of the educational policies of the institutions of higher learning with the single exception of the state university.

The establishment of separate boards to control the educational and fiscal functions of all institutions has met with little favor on the part of students of educational administration. The development of educational policies is entirely dependent upon the money available for such purposes. Consequently, the board controlling the budget determines the direction of the educational policies of the institutions. Educational administrators recognizing the power of the fiscal board are tempted to court its favor. The state school survey conducted in 1927[28] reports "that while disintegrating influences have operated to divide educational control, there has been a steady consolidation of financial control and a growing tendency for the control exercised by the financial board, the board of control, to reach into all aspects of the life of the educational institutions."

Group VI

Three types of co-ordinating boards have been given some control over the development of the curricula of two or more of the state institutions of higher learning that are administered by separate governing boards.

Type 1 includes the states which have attempted to unify the curricula of the higher educational institutions by creating a separate board to supplement the work of the several institutions each of which is administered by its own board. The states of Alabama and Oklahoma have boards of this type. In Alabama the three major institutions only are under this type of board — the state council on education, established in 1919;[29] whereas, in Oklahoma all public institutions are under the co-ordinating board established in 1929.[30] The record of these two boards and of the three abolished prior to 1933 has been one of failure to eliminate and prevent unnecessary duplication of work between and among the several state institutions.

Type 2 includes the states which have conferred substantial co-ordinating control upon the state board of education. Such action was taken by the legislature of Utah in 1925,[31] of Washington in 1927,[32] and of Texas[33] in 1929. The state board of education in Utah only has had considerable success in eliminating undesirable duplications in the institutions of higher learning. The success of this board may be attributed to the statutes which provide effective penalties for failure to comply with the orders of the state board. Furthermore, failure on the part of the state board to remove unnecessary duplication of work is deemed "gross neglect of duty" for which a penalty is also

[19]Session Laws 1857–1858, Chapter 79.
[20]Session Laws 1889, Chapter 268.
[21]Session Laws 1863, Chapter 210, Sections 1–8.
[22]The Council consists of seven persons who are elected by joint ballot of both houses. It is an advisory body to the governor. It is of constitutional creation.
[23]Session Laws 1873, Chapter 114.
[24]Session Laws 1929, Chapter 76.
[25]Presented in states of Group III.
[26]Public Laws of North Carolina, 1931, Chapter 202.
[27]A Board of Governors was created and placed in control of the educational policies of West Virginia University in 1927. This board has one fiscal power not exercised by the State Board of Education over the other educational institutions. The Board of Governors has power to fix the salaries of members of the faculty.
[28]Survey of Education in West Virginia, Vol. IV, Institutions of Higher Education, State Department of Education, Charleston, 1928, pp. 3–4.
[29]Alabama School Code 1919, Article XXXIV.
[30]Oklahoma School Laws 1929, Chapter 262, Section 2.
[31]Session Laws 1927, Chapter 110.
[32]Session Laws 1925, Bill 100.
[33]Session Laws 1929.

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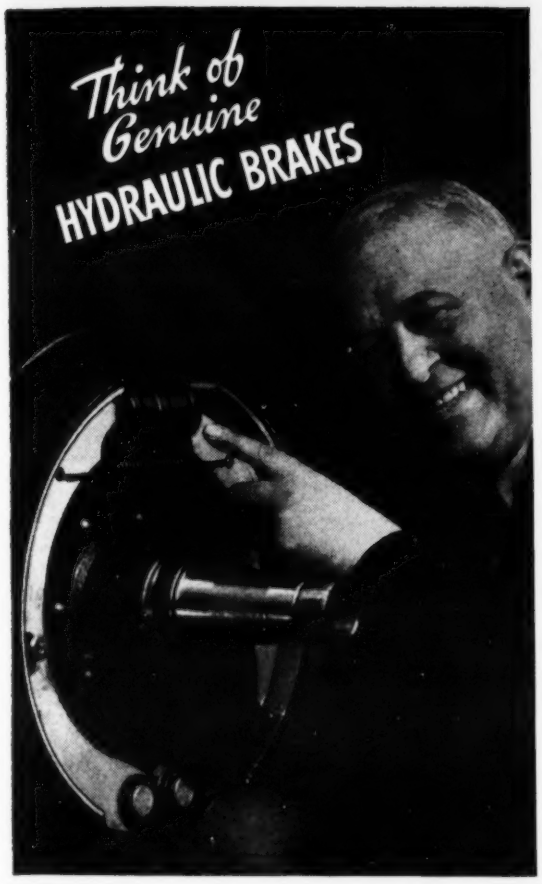

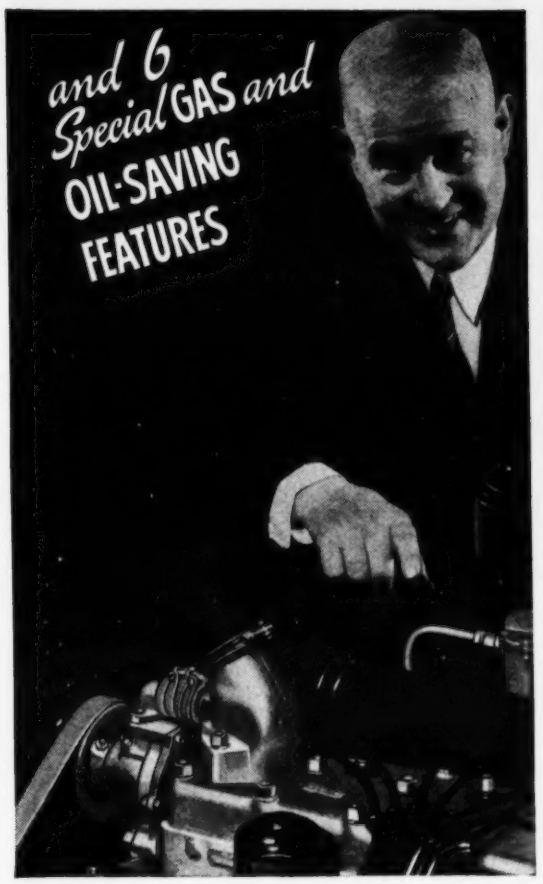

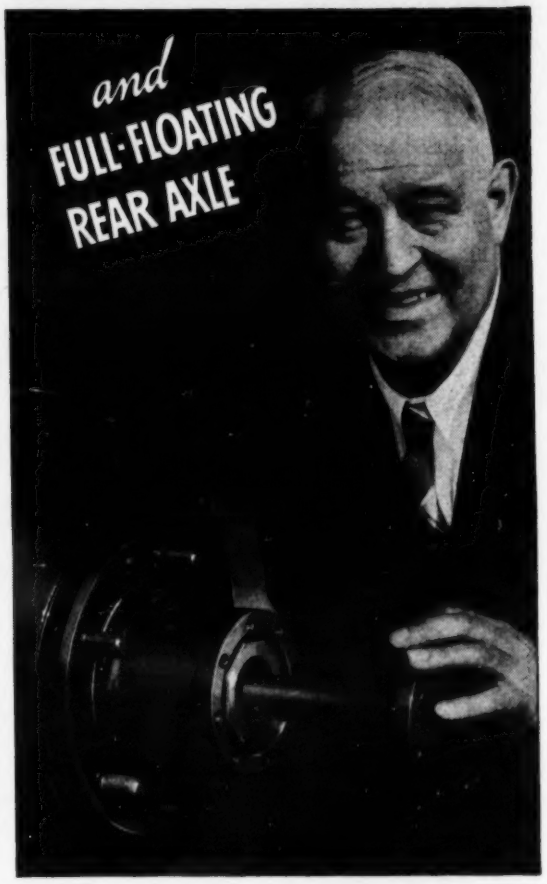

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attached. The ineffectiveness of the boards in Texas and in Washington is due in large part to the absence of power to enforce regulations.

Type 2 includes the states of Kentucky and Pennsylvania, which have established an *ex officio* board composed of the executive head of each separate teacher-training institution and the state superintendent of public instruction, for the general purpose of co-ordinating the curricula of state teacher-training institutions. The normal executive council in Kentucky was established in 1906. The board of presidents of teachers colleges in Pennsylvania was established in 1927.[34] The board in Pennsylvania has legal authority to enforce its regulations; the board in Kentucky does not.[35]

A co-ordinating curricular board composed of a professional chief state school official and the executive head of the state educational institutions with power to enforce its rules and regulations, and subject to a penalty for failure to co-ordinate the curricula of the several institutions has important educational advantages which merit careful consideration by those responsible for the development of public higher education in those states having a decentralized system. In other words, this type of organization might profitably serve as an intermediary step in the development of public higher education from a decentralized to a highly unified state system.

The Administration of a Unified State System of Education

Fundamental principles of educational administration determining the relationships that should exist among legal, quasi-legal, and administrative agencies of state educational control must be observed in the development of unified state systems of education. Under our American conception, it is the function of the state constitution to define the nature and scope of education to be provided at public expense. It is the function of the legislature to provide the types of institutions which shall offer educational opportunities to the people; to establish agencies for administering public education; to indicate the general direction which boards are to follow in the development of educational units; to provide the necessary funds for the operation of public educational institutions; and to exercise such supervision over the agencies established as will guarantee that education is being developed in harmony and in accordance with the desires of the state as expressed in the constitution and in the statutes.

The experiences of the state indicate that a single educational agency can administer the entire state educational system with greater effectiveness than several agencies. Experience indicates that this board should be small enough to function effectively; that the method of selection should guarantee that persons will be selected who are qualified by training, experience, and interests to make a maximum contribution to the effective functioning of the board; that the tenure be secure enough to avoid the political fluctuations which might influence the board to find solutions for educational problems on partisan bases; that the compensation not be large enough to make the remuneration the reason for accepting service; and that the board have authority commensurate with the task of developing an effective state system of education. To this end it has been found necessary that the board be free to organize under its own rules and regulations and adapt itself to changing social and economic conditions. The board should be directed to select the most capable man from its membership to serve as chairman; to select a secretary; to select a professional executive officer; and to appoint such standing and temporary committees as may be needed. It has been found necessary that the board be authorized to appoint all staff personnel; to develop courses of instruction; to control and supervise the construction and care of physical facilities required for making educational opportunities available to the people; to control the expenditure of all funds for educational purposes; to ascertain the relationships that should exist among the personnel of the units comprising the state educational system; and to adjudicate controversies arising in the administration of the educational program. A plan for the administration of a state educational system based upon the application of these principles is presented in the following paragraphs.

The state educational system should be administered by a single educational board. The members of this board should be selected on the basis of their ability, regardless of party affiliations, to serve the educational interests of the state. They should be selected by the governor, with confirmation by the senate or by both houses of the legislature. From nine to thirteen members are to be preferred. There should be as many years in the term of office as there are members on the board — from nine to thirteen. One member should be appointed annually.

The board should be directed to prescribe such rules and regulations, not inconsistent with law, for its own government as are necessary to administer the state system of education with unity, harmony, efficiency, and economy. This will involve the selection of officers, the appointment of standing and temporary committees, and the determination of the number, time, and place of meetings.

The board of education should have general control and management of all educational interests of the state — the elementary schools, the secondary schools, the institutions of higher learning, the schools for both the physically and mentally handicapped and those for incorrigible children, the state library, the state museum, and the education of inmates of penal institutions.

The board should have power to charter private educational institutions and to prescribe minimum educational standards for their operation.

The board should select a professional executive officer to be responsible for the execution of rules and regulations covering all phases of the work over which the board is to exercise control. The initial appointment of this officer should be for a definite term, long enough to evidence fitness for office. Reappointment should be for an indefinite term. The major duties of the executive officer should include: the nomination or recommendation to the board of all subordinate administrative, instructional, and staff personnel for appointment, transfer, promotion, or dismissal. The executive officer should develop and recommend policies and plans of procedure for the development of an effective state system of education, for the board's approval and adoption. He should delegate to assistant administrative officers such powers and duties as are in keeping with the development of effective and efficient educational units for which they may be immediately responsible. These duties will require an educational statesman of the highest caliber. Consequently the salary should be commensurate with the task of developing the greatest enterprise of the state government.

The board should prescribe requirements for admission to and graduation from each educational unit or institution under its control. It should be free to assign specific functions and to develop the curricula of the several institutions of higher learning.

The board should be free to authorize and supervise the expenditure of all monies appropriated for both general and specific educational purposes. It should have authority to allocate appropriations for general purposes, or parts thereof, among the different educa-

[34]School Laws 1931, Section 2005.
[35]Kentucky Statutes 1930, Sections 4535-19, 4535b-4f.

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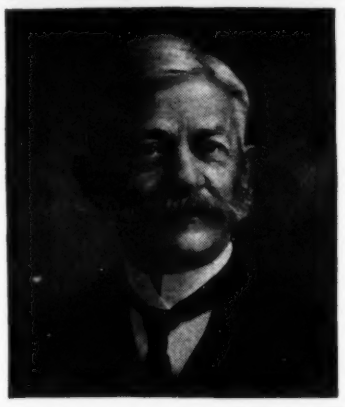

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tional units and divisions so as to insure the greatest economy and efficiency. It should present annual or biennial reports to the legislature covering the educational and financial conditions of the units under its control. These reports should serve as the basis for the continuance of legislative support.

The board should advise and make recommendations to the legislature concerning desirable changes in the laws or additional educational legislation.

The board should have authority to adjudicate educational controversies arising in the administration of the state educational system.

The control and management of the permanent funds of the educational units, or institutions, of the state should be vested exclusively in the educational board.

The board should publish an annual or biennial report covering its educational and fiscal activities, and of the conditions of the educational institutions of the state.

And finally, the board should be empowered to adopt such rules and regulations that are not inconsistent with the law as it deems necessary and desirable for the development of the state system of education.

Teachers' Salaries

FORT WAYNE SALARY SCHEDULE

The board of education has approved a new salary schedule for teachers, which seeks to elevate professional standards by encouraging permanent professional attitude, and further professional training, and by providing a flexibility which will detect and reward excellence and talent in teaching. Retirement will be practiced in order to insure growth and balance in the teaching corps.

The objectives of the schedule will be sought by (1) low minimums or low beginning increments, (2) a long period of progression from the minimum to the maximum, (3) normal increments of $50, (4) theoretical minimums and increments on a sliding scale, and (5) additional increments for teachers who pass from one training group to another.

Under the schedule, teachers in Class I will begin at a minimum of $1,000, and will advance at the rate of $50 up to a maximum of $1,650; teachers in Class II with two years' training, will begin at $950, and will advance to a maximum of $1,445; teachers in Class III, with three years' training, will begin at $1,100, and will advance to $1,700; teachers in Class IV with four years' training, will begin at $1,300, and will advance to $2,010; teachers in Class VI with five years' training, will begin at $1,400, and will advance to $2,215; teachers in Class VIII with accepted training, who have permanent-tenure contracts, will be employed on a minimum basis under the tenure law.

High-school teachers in Class V with four years' training, will begin at $1,400, and will advance to $2,315; teachers in Class VII, with five years' training, will begin at $1,500, and will advance to $2,410.

Substitutes will be paid at the rate of $5 per day for high-school teachers, and $4.50 per day for elementary teachers.

THE MANSFIELD SALARY SCHEDULE

The board of education at Mansfield, Ohio, has adopted a new salary schedule for the year 1936–37, which raises the maximum salary in the senior high school to $2,025; in the junior high school to $1,710; and in the elementary schools to $1,660. This amounts to approximately a 3.5 per cent increase over the present maximum salary. Teachers not receiving the maximum salary have been given increments of $100.

NEW SOUTH BEND SALARY SCHEDULE

The board of education at South Bend, Ind., in adopting a new salary schedule for the year 1936–37, has incorporated a number of ideas in the schedule, including a single-salary scale, and credit for the attainment of degrees.

The single-salary scale for teachers in the kindergarten, elementary, junior and senior high schools is based on bachelor's and master's degrees. Under the schedule, the minimum pay for teachers without experience is $1,125, which advances to a maximum of $2,450 where the instructor holds a bachelor's degree; a maximum of $2,650 is paid to teachers holding a master's degree.

The sick-leave pay was reinstated, with a provision allowing three days' full pay or twelve days' half pay for absence during the period of one school year.

TEACHERS' SALARIES

♦ Davenport, Iowa. The board of education has voted to restore the salaries of teachers to the level of 1931–32. The salaries are based on a school year of nine and one-half months.

♦ Decatur, Ill. The school board has voted another partial restoration of teachers' salaries in the bracket below $2,000. This means that teachers earning less than $2,000 will still be paid 5 per cent less than they were paid up to 1930.

♦ Fort Myers, Fla. The school board has approved a 10 per cent blanket increase in teachers' salaries for the school year 1936–37.

♦ Lakewood, Ohio. The board of education has approved a plan of Supt. G. A. Bowman, calling for the restoration of teachers' salaries, effective next September. Under the new arrangement, teachers receiving less than $1,450 a year will receive a restoration of $150; teachers receiving less than $1,950 will receive a restoration of $125; teachers whose salaries amount to $1,950 or more will be restored $100.

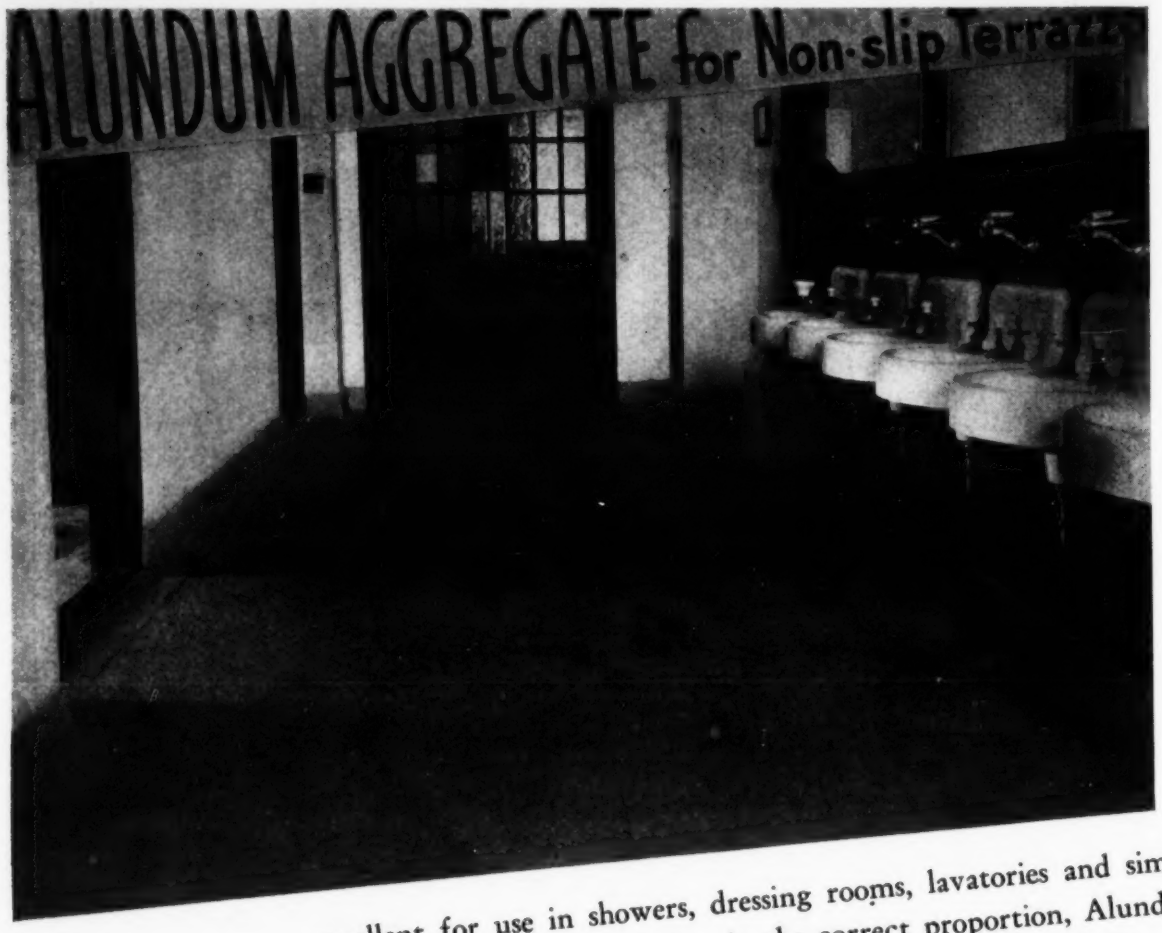
♦ Logansport, Ind. The school board has voted a partial restoration of teachers' salaries, which represents approximately 36 per cent of the reduction in salaries suffered by teachers during the depression. In addition, the board plans to use approximately $7,000 available in July for meeting obligations to teachers on withheld funds on past contracts.

♦ Spartanburg, S. C. Salary increases of 10 per cent have been given all teachers in the Caddo parish schools. The increases will become effective next September.

♦ Louisville, Ky. Teachers in the city schools will receive $93,000 more in salaries during 1936–37 than they did in 1935–36, under a recent decision of the school board. The amount embodies the increases outlined in the salary schedule put into operation last year. Under the schedule, salaries of teachers are determined by the training and length of service, with automatic increases for each additional year of service and experience.

♦ Fostoria, Ohio. The board of education has approved a new salary schedule, setting new minimum and maximum salaries for all members of the school staff. The schedule calls for a minimum salary of $800 and a maximum of $1,300 for elementary teachers with two years' training in the first six grades; and a minimum of $800 and a maximum of $1,500 for teachers in the same group with four years' training. Minimum salaries of $1,100 and a maximum of $1,800 have been set for high-school teachers with four years' training in the seventh to the twelfth grades. Teachers in the same group with five years' training will receive from $1,100 to $2,000.

♦ Mansfield, Ohio. A 3 per cent salary increase has been given to teachers and other school employees by the board of education. The schedule calls for an in-



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crease for senior-high-school teachers from a maximum of $1,953 a year to $2,025 a year; junior-high-school teachers, from $1,659 to $1,710; and elementary teachers, from $1,617 to $1,660.

♦ Brainerd, Minn. The school board has given a 2 per cent flat increase in salary to all teachers, effective with September 1, 1936.

CEDAR RAPIDS SALARY SCHEDULE

The board of education of Cedar Rapids, Iowa, has adopted a new salary schedule, based on experience and amount of training of teachers. All salaries are arranged on a twelve months' basis.

Under the schedule, teachers with less than two years' training will receive $135 after nine months' experience; teachers with two years' training will begin at a minimum of $92, and advance at the rate of $5 a month until $140 is reached after ten months' experience; teachers with three years' training will begin at $103, and advance at the rate of $5 a month until $140 is reached at the end of ten months; teachers with four or more years' training will begin at a minimum of $111, and advance at the rate of $5 a month until $165 is reached at the end of twelve months.

Teachers are classified and rated according to a score card, prepared by the superintendent. A rating of poor is 75 per cent or lower; a rating of fair is 76 per cent to and including 87 per cent; and a rating of good is above 87 per cent. Teachers rated as poor will not be re-employed; those rated as fair will be re-employed at no increase in salary; those rated as good will be re-employed and given such advances in salary as the board may determine. Teachers of exceptional ability, or who have pursued further training courses leading to improved teaching ability, will be given special consideration upon the recommendation of the superintendent.

TEACHERS' SALARY SCHEDULE AT RIVER FOREST, ILLINOIS

The board of education at River Forest, Ill., has adopted a new salary schedule, in which training and length of experience form the basis for the salaries paid. The schedule was recommended by Supt. Ray E. Cheney.

Under the schedule, teachers without experience but with two years' training will begin at a minimum of $1,200, and will advance at the rate of $60 a year to a maximum of $1,560 at the end of six years; teachers with three years' training will begin at $1,320, and will advance at $60 a year to a maximum of $1,860 at the end of nine years; teachers with four years' training will begin at $1,440, and will advance at $60 to a maximum of $2,040 at the end of ten years; teachers with five years' training will begin at a minimum of $1,560, and will advance at $60 up to a maximum of $2,220 at the end of eleven years.

Under the rules governing the schedule, new teachers without experience must present credits from a teachers' college or similar institution equivalent to three full years above the high school, in addition to a Cook County certificate. Credit for teaching experience outside of River Forest will be evaluated on its merits at the time of employment, and the salary will be adjusted according to such evaluation.

Under the rules, teachers will be required to attend acceptable educational institutions for credits in order that they may be familiar with the latest improved methods in education. Teachers may not undertake such work while in service, unless it can be shown that the work can be pursued without decreasing efficiency in the classroom, and then only for four semester hours a year.

All teachers, under the rule, are required to take at least six semester hours of college work for credit at least once in every four years. Any teacher whose health precludes college attendance may be excused at the discretion of the superintendent, but may not advance on the salary schedule until the requirement has been met, or if she is at a maximum, she must sacrifice the last increment.

In order to be entitled to bonus payments for college attendance, all teachers must take the work at an institution which is a member of the North Central Association or from an institution of equal rank. A bonus of $20 per semester hour will be paid for college work taken during summer school, or during leave of absence. Graduate students must take the work on the graduate level, unless special permission is obtained. It is understood that no teacher will be paid for more than one semester hour for each week of school attended.

Teachers may be granted leave of absence amounting to one full year out of every seven for purposes of travel or study. The salary to be paid during such leave will amount to 30 per cent of that received during the preceding school year. Not more than 10 per cent of the teaching staff will be given such leave in any one school year.

Teachers of special subjects, under the rules, will be paid more than the salary schedule. The amount paid must in no case exceed by $300 the amount the teacher is entitled to receive on the salary schedule.

Teachers may receive a double increment for a limited time for outstanding work. Teachers who have reached the maximum and who have done exceptional work will be given a supermaximum of $120 above the regular schedule. Not more than 10 per cent of the staff may be recommended for special consideration in any one year. Teachers who fail to render satisfactory service will be placed on probation for a period of one year. Continued failure will be considered as sufficient reason for dismissal.

Under the rules, necessary adjustments to meet the schedule may be made gradually, by increasing the annual increments for teachers who are below the proper salary schedule. For teachers who are already above the schedule, permission will be given to maintain the present salary, provided college work is taken as provided under section on bonus, and provided that such teachers be required to take six semester hours of college work for credit at least once in every two years.

TEACHERS AND ADMINISTRATION

♦ Highland Park, Ill. The school board of District No. 107 has adopted a new plan of cumulative sick leaves for teachers. The plan, which is retroactive for three years, goes into effect next September.

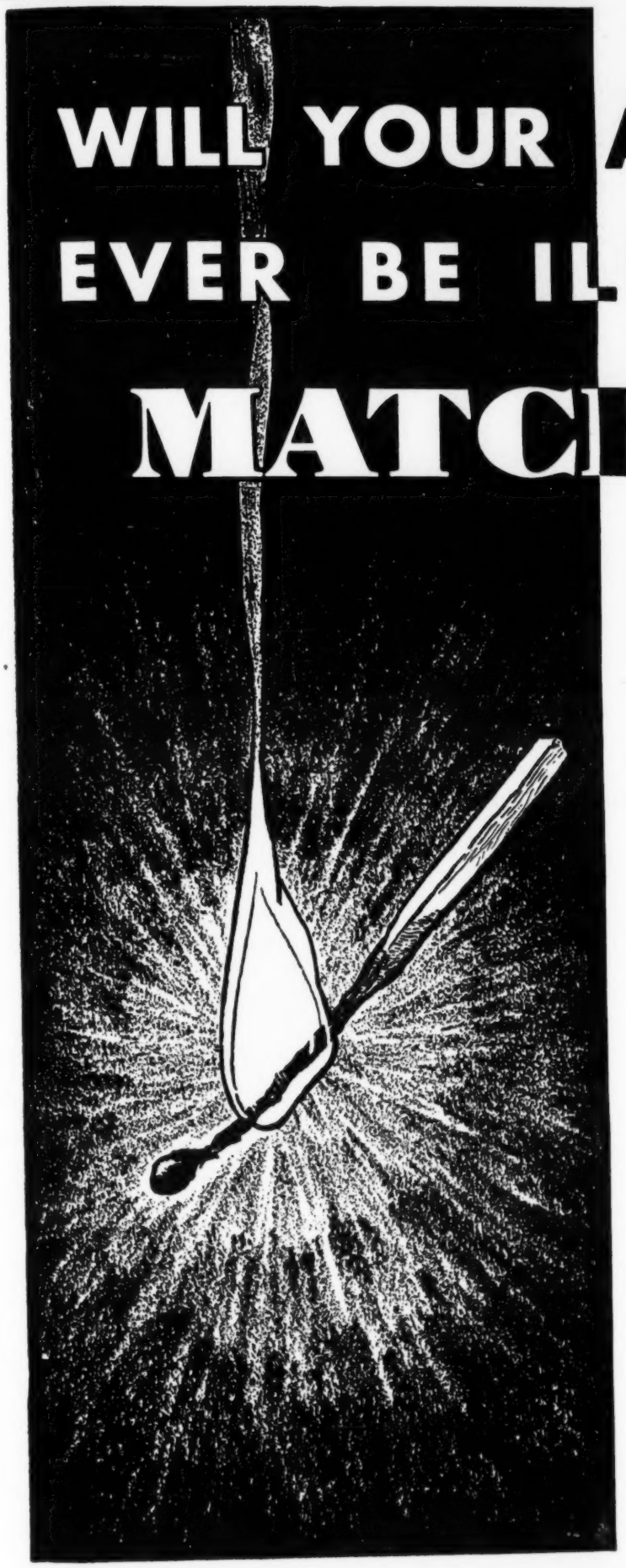
♦ Dowagiac, Mich. New contracts for teachers for the next school year carry increases of 10 per cent in salary.

♦ New Haven, Conn. The school board has asked the teachers to sign waivers for 15 per cent salary cuts during the next year. The teachers had previously offered to contribute 10 per cent for the year.

♦ Urbana, Ohio. The board of education has adopted a resolution, prohibiting the employment of married women teachers in the future.

♦ Ottumwa, Iowa. The school board has voted to resume the teaching of French in the high school. The subject was discontinued three years ago in order to curtail expenses.

♦ Haverhill, Mass. The school board has voted that, with the beginning of the next school year, it will abide by the strict letter of the rules, which allow five days' absence for teachers with full pay, and five days with half pay during any half year. The action was taken in order to discourage the practice of teachers who ask for leaves of absence with full pay during illness.



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School Law

RECENT SCHOOL LAW DECISIONS

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An Action for Breach of Contract

A teacher has a right to maintain an action at law to recover for breach of contract, where a school fails to comply with a statute relating to discharge, and discharges her before the expiration of her contract, the Supreme Court of Iowa has ruled in the case of *Schrader* v. *Cameron Township School District*, 266 N.W. 473 April 7, 1936.

"It is next insisted that plaintiff cannot be heard in this cause because she did not appeal to the county superintendent, from her discharge by the board. It must be conceded that there is some apparent conflict in our cases on this question, but, so far as the matters involved in this case are concerned, the rule is settled in this state that, under Section 4237 of the Code, the notice and opportunity to the teacher to appear and meet the charges against her is the fundamental dividing line in our cases. That is to say, that if the board fails to comply with the provisions contained in this section and discharges a teacher before the expiration of her contract, then such teacher has a right to maintain an action at law to recover for the breach of contract. On the other hand, it seems well settled that where the board has attempted to comply with the aforesaid section, and the teacher appears and participates in the proceedings and is then discharged by the board, she must appeal to the county superintendent. To put it in a more simple manner, if Section 4237 is disregarded and a teacher is discharged, then she can maintain an action at law for her salary; if, on the other hand, the aforesaid section is complied with, then she has no right to maintain the action at law in the first instance, but must appeal to the county superintendent. This has been the trend of all our later decisions. We think this rule is clear cut and is in accordance with the holdings of the court. . . ."

Power of the Board to Contract with Teachers

Teachers as well as others dealing with a board of education are charged with knowledge of the extent of its power to contract. *Sutton* v. *Board of Education of Duluth*. 266 N.W. 447, April 9, 1936.

"By the enactment of the Teachers' Tenure Act, the plaintiff became a permanent teacher in defendant's schools and cannot be deprived thereof or demoted, except for cause to be established at a hearing. The plaintiff's contention is that he is a teacher at the salary named in the salary schedule, and that an annual contract between the defendant and its teachers is not necessary in order to maintain an action for his salary.

"When the salary schedule was adopted, it could not serve as a substitute for the annual contract of employment between the defendant and its teachers. The law required such a contract to be formally executed for each school year. . . . From the beginning of the plaintiff's employment such a contract, stating the amount of his salary, and at what time it should be paid, was executed for each school year by both parties thereto, except for 1934–35. As above stated, the salary schedule itself indicates that each school year such a contract should be executed. Taking all of the circumstances into consideration, the salary schedule was a rule or guide, pursuant to which the annual salaries were determined and embodied in the teachers' contract for each school year. No doubt the defendant intended that all future contracts for teachers' services should conform thereto, and it was meant as a representation and inducement to teachers to enter the defendant's employ. And it must be conceded that, if the parties hereto were ordinary individuals with full power to enter into any contractual relation they pleased, the many authorities cited by counsel would sustain a recovery on the basis that the schedule is in the nature of an offer to pay the salary therein named, which becomes a binding contract upon the teacher accepting the service, and formal acceptance is not now needed as to permanent teachers under the tenure act. . . . But the defendant's powers to contract are circumscribed and limited by law, and everyone who deals with it is charged with knowledge of the extent of such powers. No one could think that the adoption and promulgation of the salary schedule in 1923 definitely fixed the salaries of teachers for every future year. Defendant is limited by law as to the maximum tax levy it may impose each year — the chief source of its revenue from which its pecuniary obligations must be met. In the nature of things it could not predict with certainty the assessed valuation of the property subject to its tax levy years in advance."

Liability Insurance for School Busses

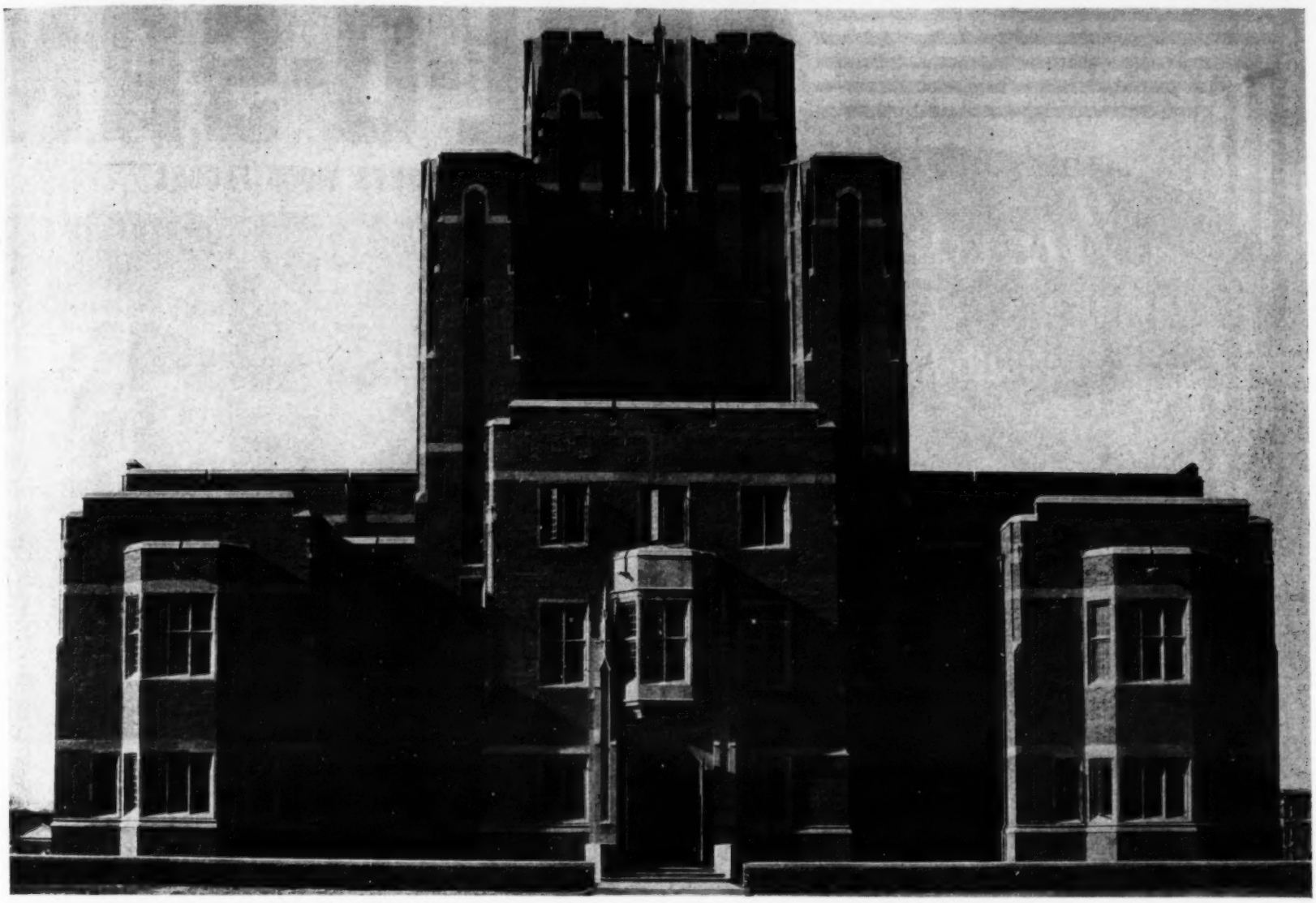
A county may take out liability insurance covering operation of its school busses, if the statutes empower the county to employ a school bus driver and require him to give a bond for faithful performance. The Tennessee Supreme Court has said, "We think it was proper for the county to take out liability insurance covering the operation of its school busses. Our statutes justify such procedure.

"Subsection (5) of Section 2326 of the Code is as follows: Giving the county board power 'to purchase equipment and to employ a driver, or to contract with persons owning equipment, for transporting pupils to and from school; provided, that such expenditures be duly authorized in the budget approved by the quarterly county court, and provided, further, that such transportation be established and maintained economically, based on its cost and efficiency.

" 'Transportation may be provided for groups of children of school age who live more than two miles from the school building, by the nearest accessible route, whenever in the judgment of the county board of education such transportation can be economically provided, or whenever the efficiency of the school or schools can be improved thereby; provided, that neither the state nor the municipality shall collect a privilege tax from the driver of any horse-drawn or motor vehicle who has a contract with the county board of education to transport the children of any community to and from school, unless such driver should carry other persons than school children for profit; provided, further, that the county board of education may require the driver of any vehicle to make bond in the amount not less than five hundred dollars for the faithful performance of the duties that the position imposes; and provided, further, that the driver of any vehicle shall preserve order among all of the children while they are in his custody and shall follow schedules and cover distances prescribed by the county board of education.'

"Certainly one of the duties imposed upon the driver of a school bus is the use of appropriate care in the transportation of the school children. Such care is inseparable from 'faithful performance' of such duties. A bond taken to secure due care on the part of a driver is but a mode of insuring against the consequences of his negligence. It is immaterial that the obligation taken be in the form of a liability insurance policy. Either instrument serves the purpose of the statute. Either is within the authority of the

(Concluded on Page 60)



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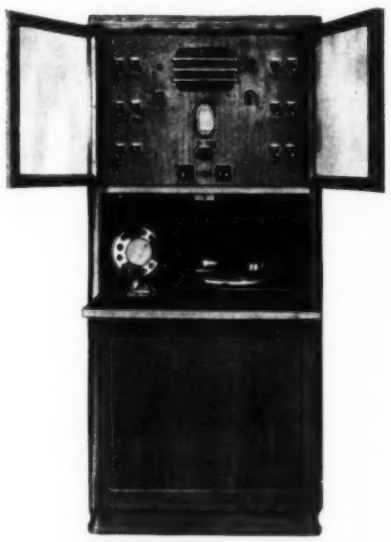

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county board of education." *Rogers* v. *Butler*, 92 S.W. 2d 414. April 8, 1936.

Contract Does Not Terminate Teacher Tenure

In the case of *Stiver et al* v. *State ex rel Kent*, 1 N. E., 2d 592, the Indiana Supreme Court said that the execution of a new contract between the teacher and the school township does not terminate the tenure of the relatrix.

"We hold that the execution of a new contract for the year 1929–1930 between the relatrix and the Clinton school township did not terminate the tenure of relatrix. The legislative purpose in authorizing a new contract, to be entered into by a tenure teacher and the employing school corporation, was not to provide a means of terminating tenure, but to enable school corporations and their tenure teachers to adjust the provisions of indefinite contracts to current needs.

"In support of the second ground of demurrer, the appellants contended that Section 1 of Chapter 116, Acts 1933, p. 716, destroyed the tenure rights of teachers who were employed in township school corporations and who had become permanent teachers under indefinite contracts prior to the date that Chapter 116, Acts 1933, went into effect. By express declaration, the Teachers' Tenure Act of 1927 applied to teachers of all school corporations in Indiana. Section 1 of Chapter 116, Acts 1933, amended Section 1 of Chapter 97, Acts 1927, by omitting the words 'any school corporation' and substituting 'any school city corporation' and 'any school town corporation.' It was the evident purpose to exclude township school corporations from the operation of the tenure law from and after the date Chapter 116, of the Acts 1933, became law. But there is no expression of an intention to destroy the tenure rights which had become vested prior to the enactment of Chapter 116, of the Acts 1933; and if the contract of relatrix was canceled without good and just cause prior to the enactment of Chapter 116, she was entitled to reinstatement as of the date of the ineffectual cancellation. Whether her tenure rights were affected by the act of 1933 is not involved in this case."

Building Superintendent and Architect Not Agents of Owner

A building superintendent and an architect are not agents of the owner, the Texas Court of Civil Appeals said, so as to bind him to the contractor for extra costs. *McDaniel* v. *City of Beaumont*, 92 S.W. 2d 952. April 1, 1936.

The appellants contended that the superintendent and architect were agents of the appellee. "This contention is overruled. Under the contract and the plans and specifications, the superintendent of construction and the architects were not the 'agents' of either party; they were the judges of the performance of the work and authorized by both parties to act in that capacity. That they were selected and paid by appellee was immaterial. Their relation to this contract was that of impartial judges between the parties, and not as 'agents' of either party. This relation was clearly stated and defined in the contract, plans, and specifications, and mutually agreed to by both parties as an essential part of the contract for the erection of the high-school building.

"The terms of building contracts, together with the terms and specifications, usually determine the character and extent of the agency of the architect. Construed together, these fix the limits of his authority beyond which his acts are not binding on the owner."

Damages Sustained

Stokes et al v. *Church of the Holy Rosary*, 287 N.Y.S. 236. April 24, 1936. This was an action for personal injuries. "Plaintiff, eleven years old, was a pupil in the defendant's school. While playing tag, he ran through a passageway leading from the school playground, which terminated in a retaining wall forty inches high, the top of which was level with the passageway. There was no fence or other protective guard along the retaining wall, and the plaintiff fell from the top of the wall to the street sustaining the injuries complained of. Judgment for plaintiff was affirmed."

School Liable for Accident

Where it was shown that it was general custom to protect students from dangerous projections in gymnasia, the board is liable for injuries to students if they fail to provide the protection.

There was a judgment June 17, 1935, for plaintiff for $2,248.01. *Bradley* v. *Board of Education of City of Oneonta*, 286 N.Y.S. 186. March 5, 1936.

"On the present trial, the plaintiff supplied proof that a general custom existed in that section of protecting dangerous projections in gymnasia by mats or padding. In other respects the record is substantially the same as on the previous trial.

"Plaintiff was participating in a game of field dodge ball as a part of the regular school curriculum. He slipped on a slippery floor, fell and struck the corner of a brick pilaster which projected from the wall of the building. Corner boards had originally been installed to guard this pilaster, but the boards had come loose at the corner in question, drawn away from it, and left it unguarded."

DEFINITE UPWARD TREND REPORTED AT HIAWATHA, KANSAS

The public schools of Hiawatha, Kans., have experienced a general upward trend in school support and an expansion of the school program during the school year 1935–36, according to a statement of Mr. M. F. Stark, superintendent of schools.

During the year there has been a definite improvement in educational facilities and there appears to be a trend toward a better educational program for the community. Among the improvements initiated during the year are (1) an enlargement of the teaching staff, (2) a restoration of 8 per cent in teachers' salaries, (3) a new instructor for instrumental music and an increased amount of time for music instruction, (4) an expansion of the curriculum in such types of work as penmanship, health, and physical education, and (5) a general improvement of buildings, new equipment, and the purchase of magazines for the school library.

MUNICIPAL BANKRUPTCY ACT INVALID

The Municipal Bankruptcy Act, favored by President Roosevelt, and enacted in 1934 to permit states, school districts, and other political subdivisions which find themselves in financial straits, to effect a composition with the approval of two thirds of the bondholders or other creditors whereby the indebtedness can be adjusted or scaled down, or as Justice McReynolds put it, repudiated, has been found unconstitutional under a decision of the United States Supreme Court, delivered on May 25.

The decision is of interest to boards of education because it returns to the states the control of and readjustment of debts contracted by municipal corporations and other political subdivisions who find themselves unable to meet payments of interest and principal on bond issues and other obligations.

The court held that the law is a constitutional interference with the rights and dignity of the states. The dissenting opinion which was signed by four justices, held that the law provides relief and because of the balances provided does not interfere with the autonomy of the states or their dignity.

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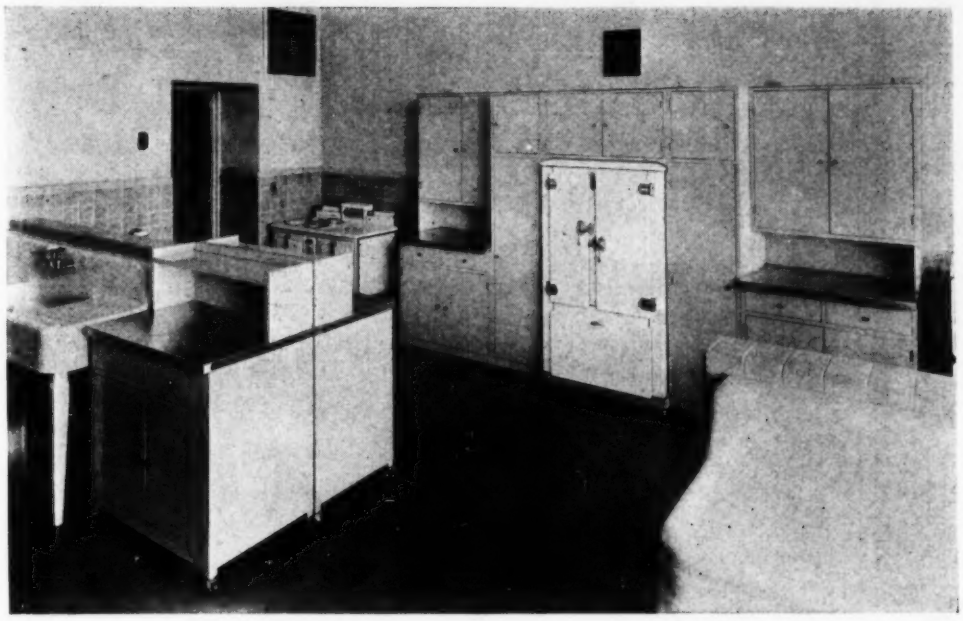

Unit Kitchen Arrangement, Malverne High School, Malverne, L. I., N. Y.

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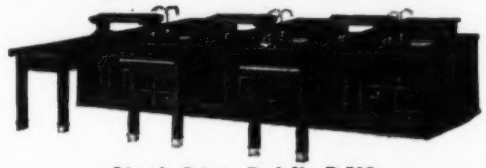
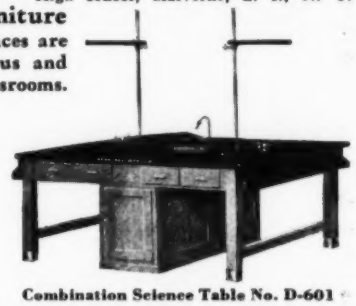


Lincoln Science Desk No. D-503



Combination Science Table No. D-601

School Board News

The members of the board of education of Los Angeles, Calif., now receive $10 a meeting, not to exceed $100 a month. This payment is permissible under the provisions of the state school code. The pay for several years past was $5 a meeting, not to exceed $50 in any one calendar month. The board meets twice a week and supplementary activities, committee meetings, budget hearings, etc., entail time that accumulates rapidly and amounts to a total of two or three days a week. The pay, it is held, is not an inducement to perform public service for the mere financial return but is intended to represent an offset against the time that the board member might spend in his own private activities.

♦ Plymouth, Mass. The school board has voted to adopt the six-three-three plan of organization for the school system. The new plan will be put in operation in September, when a new school building will be occupied.

♦ Philadelphia, Pa. Upon the suggestion of the special committee, the board of education has appointed Mr. George A. Works, of Chicago University, to conduct a survey of the public-school system. The survey, which is intended to reveal possible economies in operation, will be financed by an appropriation of $25,000.

♦ Pontiac, Mich. The board of education has approved a ten-month school year for 1936–37, and has given flat increases of $10 a month to all teachers. During the past two years, the schools were operated on a nine and one-half months' plan.

♦ Superior, Wis. Under a referendum vote of the people, the recreational activities of the city have been taken over by the board of education. In the future, the board will have charge of the preparation of the budget and the supervision of recreational and playground activities in the city.

♦ North Tarrytown, N. Y. The school board has received a report of the survey committee, which recently conducted a four-months' study of the school system. The survey was in charge of Mrs. Edgar G. Greene and covered both elementary- and high-school buildings.

♦ Medford, Mass. The school board has approved a new high-school program, calling for seven periods of 40 minutes each, beginning with September 1. The change was made because of a lack of accommodations due to a large increase in enrollment.

♦ Harlan City, Ky. The board of education, with the co-operation of the state education department and the Federal Government, has begun a survey of the school system of the city and county. The survey is expected to result in findings that will be employed in the preparation of a long-time program for elementary and high schools.

♦ Jacksonville, Ill. Four members of the board of education participated in an official tour of inspection of the public schools. The group was accompanied by Supt. R. O. Stoops and made a thorough survey of the buildings, equipment, and operation of the schools. Fire drills were conducted at the grade buildings to determine their efficiency and the time required to empty the buildings. A report of the trip has been presented to the board.

♦ The school board at Anthony, Kans., made use of bermuda grass last year for the sodding of the school playgrounds. This grass formed a good mat covering the ground all winter and was helpful in eliminating mud and wear and tear on the shoes of the school children.

♦ Erie, Pa. The school board has voted to carry compensation insurance for the school district. The contract was awarded at approximately $2,700 to the state board, on the $1,600,000 payroll of the district.

♦ Atlantic City, N. J. Graduates of the high school appeared in caps and gowns at the recent commencement exercises, for the first time in many years. Caps and gowns were ordered discontinued by the board 25 years ago, but the idea was approved this year following a vote in favor of them by the senior class. Girls wore white gowns, and boys blue gowns, for which a rental fee of $1.35 was paid.

♦ Madison, Wis. The board of education has approved a new plan, governing the working conditions and compensation for janitor-custodians. Under the plan, the schedule calls for a nine-hour day on school days, and a five-hour day on Saturdays. During the summer-vacation period, the schedule will be an eight-hour day for five days a week, with Saturdays and Sundays off. The schedule establishes a minimum regular increase in salaries of $60, and a maximum annual salary of $1,560 for regular men custodians.

♦ Lawrence, Kans. Informal reports have taken the place of the customary report cards in the elementary and junior high schools. The new report forms which have been in use during the past year, have been well received by the patrons of the schools.

♦ La Porte, Ind. A revision of the courses of study in health and social science has been started for the school year 1936, under the direction of Principal W. R. Godwin of the junior high school.

♦ School boards have the authority to employ safety patrolmen to escort children across streets but are not authorized to contribute funds for employment of municipal officers assigned to such duties, under a recent ruling made by the Attorney General of Ohio.

♦ Milwaukee, Wis. The public schools face a shortage of from $250,000 to $300,000 in budget requirements for the year 1936–37, due to the state's failure to provide aid for high schools, and to the fact that the school board has been unable to increase its revenue. The 1936 budget totals $7,700,000, according to Mr. Frank M. Harbach, secretary, and even savings effected this year will not leave a sufficient surplus to meet 1937 costs.

♦ Erie, Pa. The school board has set the tax rate for 1936–37 at 13½ mills, following the adoption of a budget of $2,619,000. In accepting the new budget, the board finds itself approximately $300,000 in the "red" to begin the year, due to the fact that it will be necessary to refund $200,000 in bonds which must be redeemed. Economical operation and an increased delinquent tax payment will save the other $100,000. It is estimated that the income from the 13½ mills will produce approximately $2,300,000 for school purposes during the year.

♦ Chester, Pa. The school board has set up a tax rate of 13 mills, in place of 11 mills, to meet a budget of $1,124,345 for the school year 1936–37.

♦ Saginaw, Mich. The school board has approved a budget of $1,687,627 for the year 1936–37, and has set the tax rate at $10.18, or an increase of $2.38 over the former rate.

♦ Jamestown, N. Y. The school board has adopted a budget of $1,268,939 for the school year 1936–37, which is an increase of $165,044 over the estimate for 1935. The school-tax rate has been raised by $1.96, making the rate for the next year $11.9846.

♦ Adrian, Mich. A school budget amounting to $219,998 and calling for a tax of $75,000, has been adopted by the school board for the year 1936–37. While the budget is $29,000 larger than last year's estimate, the voted tax asked is $50,000 less than the former tax.

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Personal News of Superintendents

● Dr. Ernest C. Hartwell, superintendent of schools of Buffalo, N. Y., has been appointed as principal of the State Normal School at Brockport. Dr. Hartwell, who succeeds Alfred C. Thompson, will take up his new work on September 15. He has been superintendent at Buffalo since 1918, and before that had been superintendent at St. Paul, Cedar Rapids, and Sault Ste. Marie, Mich.

● Mr. Oscar M. Pittenger, former superintendent of the Indiana State School for the Deaf, has announced his candidacy for the republican nomination for state superintendent of public instruction.

● Twenty-two prominent American educators, on May 10, united to honor Dr. Frank E. Spaulding, the first chairman of the Department of Education of the Yale Graduate School. Professor Spaulding was presented with a volume of essays written as a testimonial to him by his former associates in various parts of the United States. Professor Spaulding went to Yale University in 1920, after having served for three years as superintendent of schools in Cleveland, Ohio. He is the author of textbooks and articles dealing with educational policies and administration, and has directed numerous educational surveys.

● Mr. Edward H. Hynes, assistant superintendent of schools of New Orleans, La., died on May 3, at the age of 64.

● Mr. Roy F. Hannum, superintendent of schools at Ottumwa, Iowa, died suddenly on June 2, following an attack of heart disease.

● Mr. J. J. McConnell, a former superintendent of schools in Cedar Rapids, Iowa, died on May 8, at Ainsworth. Mr. McConnell, who was 85, was graduated from the University of Iowa, and had filled the superintendency in a number of Iowa cities. He had been retired since 1923.

● Mr. J. M. Scudder, retiring superintendent of schools of Huntington, Ind., was the guest of honor at a banquet given by the teachers and the school board on May 19. One hundred guests attended the dinner. Mr. Scudder was presented with an oil painting.

● Samuel Engle Burr, superintendent of schools at New Castle, Del., has received the degree of Doctor of Education from the University of Cincinnati. Dr. Burr was elected superintendent of the New Castle schools in July, 1934, and was recently re-elected for a third term. He is visiting lecturer in education at the summer sessions of the University of Buffalo, where he conducts courses in school administration and supervision.

● Dr. A. Duncan Yocum, a former teacher and superintendent, and a member of the faculty of the University of Pennsylvania, died on June 8, at the age of 66. Dr. Yocum, a native of New York, had been a principal and superintendent in Delaware and New Jersey. At his death he was professor of educational research and practice, and director of the University's summer school. He was the author of books on educational subjects and was responsible for the establishment of Schoolmen's Week at the University.

● Mr. N. J. Lasher, superintendent of schools of Seymour, Ind., has been nominated to the office of State Superintendent of Public Instruction on the Republican ticket.

● Mr. Roy F. Hannum, superintendent of schools at Ottumwa, Iowa, for the past eight years, died at his home on June 1, after an attack of heart disease. Born in Sperry, Iowa, Mr. Hannum attended the old Howe Academy and the Iowa State University, from which he received his bachelor's degree in 1907. In 1915 he took postgraduate work at Columbia University. He was superintendent of schools in Ireton, and principal in Muskogee, Okla., before going to Ottumwa in 1927.

● Mr. Paul A. Rehmus, principal of the Central Senior High School in Battle Creek, Mich, has been given a year's leave of absence in order to become a member of a school-survey committee. Mr. Rehmus, with other educators, will make a nation-wide survey of high schools and colleges, to be undertaken by the Rockefeller Foundation in an effort to improve the standards of these educational institutions.

SUPERINTENDENTS' ELECTIONS

Alabama: Tuscaloosa, Houston Cole elected county superintendent.

Colorado: Brighton, G. L. Koonsman elected.

Georgia: Columbus, R. B. Daniel re-elected.

Georgia: Morganton, J. M. Lanier elected.

Illinois: Galena, Stanley R. Finifrock elected; *Chicago*, G. E. Cassell elected assistant superintendent.

Illinois: East Alton, Charles Gabbert elected.

Iowa: Rossie, Carl B. Gruis elected; *Elwood*, Ernst Andrews elected; *West Union*, R. W. Esslinger elected.

Iowa: Glenwood, R. E. Ballard elected; *Muscatine*, N. D. McCombs elected; *New London*, H. M. Morrow elected; *Independence*, A. J. Jones re-elected.

Kentucky: Greenup, Eugene Sammons elected.

Maryland: Baltimore, State Supt. Albert S. Cook re-elected.

Massachusetts: Woburn, Supt. G. I. Clapp re-elected; *Brimfield*, R. S. Kimball elected; *Danvers*, Supt. I. G. Smith re-elected; *Wellesley*, E. C. Minor elected.

Massachusetts: Wellesley, E. H. Miner elected.

Michigan: Plainwell, W. A. Ridgley elected; *Bay Port*, Joseph Russell elected.

Michigan: Watervliet, Supt. R. R. Shelters re-elected.

Minnesota: Heron Lake, Supt. A. J. Noll re-elected; *Lake Park*, C. R. Narveson elected.

Missouri: Flat River, W. A. Deneke elected.

Nevada: Carson City, Supt. Charles Priest elected.

Ohio: West Unity, D. F. Greenler elected; *Carlisle*, J. M. Garst elected; *Norwood*, H. S. Bates elected.

Ohio: Manchester, John Walton elected; *Youngstown*, Supt. G. E. Roudebush re-elected.

Oklahoma: Wynona, Oscar L. Holman elected.

Rhode Island: Johnston, Supt. A. A. Thornton re-elected.

Wisconsin: Wisconsin Rapids, Floyd Smith elected; *Reedsburg*, R. T. Norminton elected; *Watertown*, Supt. R. A. Buell re-elected.

Personal News of School Officials

● Mr. W. Murray Sebastian, oldest member in point of service on the Caddo parish school board at Shreveport, La., died at his home on May 16, after a short illness.

● Dr. M. C. O'Brien, physical director in the public schools of Philadelphia for thirty years, died on May 22, in the Temple University Hospital.

● Otto H. Helfrick, president of the school board of Elkhart, Ind., died at his home on June 8, after a long illness. Mr. Helfrick was serving a second three-year term as a member of the board.

● William B. James, president of the board of education at Bowling Green, Ohio, died suddenly on June 4, while engaged in distributing diplomas to the high-school graduating class.

SCHOOL OFFICIALS' ELECTIONS

Connecticut: West Haven, William M. Cox, superintendent of buildings.

Kansas: Goodland, H. R. Shimeall elected secretary-business manager.

Illinois: Rockford, H. D. Tolmie, superintendent of buildings; *Chicago*, James B. McCahey re-elected president, C. W. Fry vice-president.

Indiana: Fort Wayne, Miss Louise Brumbaugh, director of research.

Louisiana: Lake Charles, S. J. Welsh elected member of board.

Massachusetts: Wakefield, H. B. Allman elected president; *Monson*, Harrison Brown elected president.

Michigan: Port Huron, J. C. Sloan re-elected business manager; *Grand Rapids*, John Dalton re-elected president; *Dearborn*, Homer C. Beadle elected president of Fordson District; *Wyandotte*, W. A. Marsh re-elected president.

Michigan: Hastings, A. Lynn Brown re-elected president.

Nebraska: Nebraska City, L. E. Peterson elected president; *Grand Island*, C. A. Laughlin elected president; *Hastings*, John Parsons re-elected president; *Norfolk*, M. S. McDuffee re-elected president

New York: New York City, Mrs. Johanna M. Lindlof elected member of board; *New Rochelle*, E. W. Stitt elected president; *Poughkeepsie*, C. A. Hopkins elected president; *Albany*, N. F. Towner elected president; *Jamestown*, L. R. Van Vlack elected president.

North Carolina: Durham, Marvin M. Fowler re-elected business manager

North Dakota: Fargo, Dr. Walter L. Airheart elected president.

Oklahoma: Oklahoma City, Otto Ross re-elected president; *Bartlesville*, C. H. Burt re-elected president; *Enid*, E. H. Shockley re-elected president; *Shawnee*, Dr. W. M. Gallaher elected president.

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UNIVERSITY EDITION

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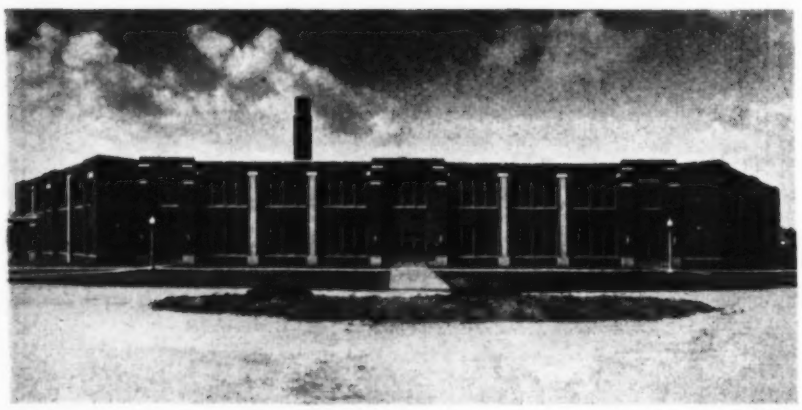

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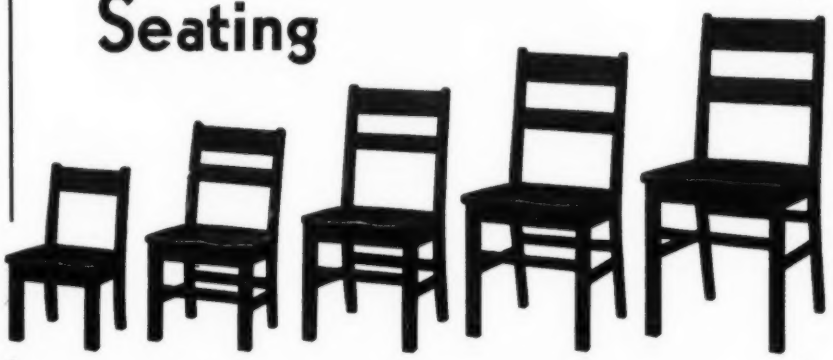

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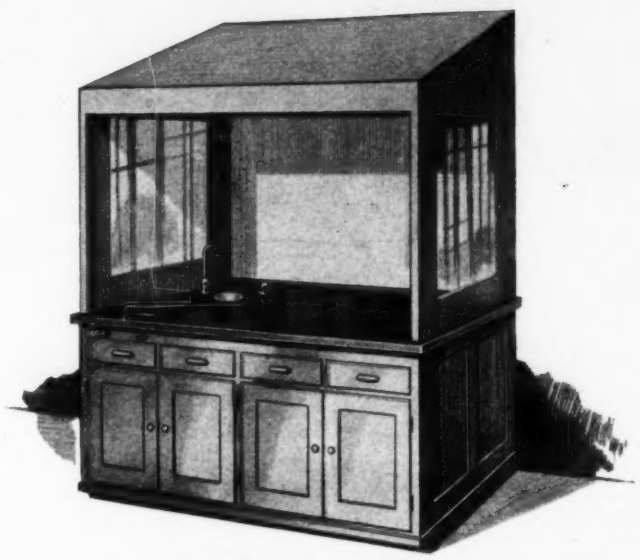
Upper hood sections are available in a variety of approved materials. Base units, in standardized sizes and designs, as well as fixtures and service outlets may be varied to meet your specifications.



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School Building News

THE SELECTION AND PURCHASE OF SCHOOL EQUIPMENT

Ray E. Cheney[1]

The first decision to be made in determining upon school equipment for a new school building is whether the administration will handle the problem, or place it in the hands of an architect. If this task is to be handled by an architect, the department heads, together with the principals, the supervisors, and the superintendent are usually asked to assist in making out a list of those needs. The architect then advertises for bids, and he usually handles the letting without further advice, other than to keep the superintendent informed of his progress.

If the school administration is to be responsible, then the best practice is again to call on these same people for help. It is not unusual, however, to find other plans used, such as asking a committee of the board of education to act, referring it to the purchasing agent or business manager, referring it to the superintendent of schools, or referring it to the principal of the building.

1. *Purchasing from the representative or catalog of a manufacturer or jobber, without reference to prices or quality of product of other firms.* There is no justification for this plan, which involves purchasing from a certain firm, without first checking prices and quality of products with other firms. An argument for this plan often advanced is that the purchaser knows the product of a certain company, and he knows that competing concerns cannot offer a satisfactory substitute. Such a statement is decidedly out of order, for price is an important factor in any decision. We may greatly prefer a certain product; but, again, we may find that its price is so high that the selection of a substitute is not only necessary but advisable.

2. *Purchasing from the representative or catalog of a manufacturer or jobber, after checking prices and quality of product with those of other firms.* This method involves the checking of prices and the quality of product with several firms before selection, and it implies a rather superficial procedure. This can be justified in the purchase of small items where the total cost involved is small compared with the effort that must be put forth to get more complete information called for under plans five and six.

3. *Purchasing on sealed bids, each bidder offering what he thinks the school officials are most likely to buy.* This method is decidedly unfair to the bidder and unfair to the purchaser. Yet we often find that purchasers of school equipment notify manufacturers and jobbers that they are in the market for a certain number of tables, for example, of a certain size, and they leave the details to the discretion of the bidder. Such practices bring but one result. The bidders will try first to discover if the controlling factor in the purchase will be price or quality and will be governed accordingly. If price is to be the determining factor, then heaven help the purchaser; for he will be amazed at some of the articles submitted as tables.

Purchasing Through Sealed Bids

4. *Purchasing on sealed bids, based on a specification setting forth the quality of the article to be purchased by naming an acceptable standard in the catalog of a certain firm.* In this method the purchaser gives an idea of what he wishes to buy when he names an acceptable standard by catalog number. Through this plan he gives some idea of the quality of the article he wishes to buy. However, the competitors of that company whose table is named as a standard have certain advantages, for they may choose from their line a table that compares in size and color, but which is inferior in quality of workmanship, materials, and finish; and by so doing they may submit a low bid. The company whose table is named as the standard has no such freedom, and it is seldom the low bidder under this procedure. There was a time when companies sought the honor of having their products named in a specification, but this seems to be a doubtful honor.

5. *Purchasing on sealed bids, based on a definite specification in part and a catalog number in part.* This method, which is supplemented by a specification calling for modification, is used when the buyer is unable to find just what he wants in the catalogs of the manufacturers. He may be in the market for tables of a certain size, but he may wish, also, to have these tables equipped with a certain number of drawers of a certain size. In this respect, the tables must be special and there must be a specification to cover the needs. In other respects the tables of a certain firm may be satisfactory.

6. *Purchasing on sealed bids, based on a definite specification which states, in detail, just how the article is to be made, of what material it is to be made, the finish to be used, and the workmanship to be employed.* This method, which calls for a complete specification, is used when the buyer wishes to define completely the article which he proposes to buy. Under such a plan the description must cover the conditions of bidding, the materials to be used, the finish, and the workmanship. The breadth of knowledge necessary to set up a complete specification is so formidable that it is generally used only by the larger school systems, which are well staffed with people who have considerable knowledge of the problem, or where the task of writing the specification is placed in the hands of an architect.

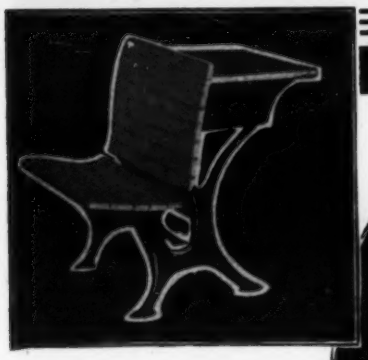
The traditional specification method of purchase should be retained, so far as the specific requirements of the particular situation demands, but the manufacturer should be allowed to use his own factory processes where the same are not in violation with the local requirements. It is my further recommendation that such manufacturers, as bidders, be required to fill out, in detail, a specification which will include complete descriptions of the materials to be used, the dimensions of stock, the finish to be applied, and the workmanship to be employed. Under such a method of purchase, involving as it does the present traditional policy with a new technique, it will be possible for the prospective buyer to compare the quality of equipment offered, with the price at which it can be purchased.

In summarizing my arguments, I should like to call attention to the following points:

1. Not all present practice can be defended, but we can justify the present practice of calling on teachers, department heads, supervisors, principals, and superintendents for help in making out a statement of equipment needs.

2. The present practice of preparing a written specification of equipment needs can be justified, but there is no justification for a complete specification telling just how each part of the equipment shall be built. Such procedure can be justified only when educators have positive information that one method of construction or one type of material is definitely superior to another, and this information should come from noncommercial sources.

[1]Address delivered at the recent St. Louis meeting, Department of Superintendence, February 24, 1936.



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3. The buyer should require the bidder to file a specification which will carry complete information concerning the manufacturing processes used in making the equipment.

4. The annual cost of school equipment in this country is so great that the Department of Superintendence should find some means by which a laboratory service may be available to educators. Such a laboratory should determine through scientific methods, the merits of various kinds of materials, finishes, and construction, and such information might be passed on to prospective buyers. With such a service at hand, the educator could give his whole attention to educational needs, and departure from traditional practice in equipment construction would no longer present the hazard that is present today.

SCHOOL-BUILDING FINANCE PROBLEM IN SAN BERNARDINO, CALIFORNIA

The board of education at San Bernardino, Calif., is facing a problem due to the urgent need of additional housing facilities in the high school. Recently, there has been discussion concerning the relative merits of a special tax, or a bond issue, in financing an adequate school-building program. Mr. C. V. Kelty, secretary of the board of education, in a statement, has presented a picture of the problem, showing what the taxpayer receives in return for what he pays under each method of financing. In the elementary district, a bond issue of $250,000 was floated in 1919, to run for 40 years, a second for $140,000 was floated in 1923, to run for 23 years, and a third for $325,000 was floated in 1925, to run for 25 years. In the high-school district, a bond issue of $300,000 was floated in 1923, to run for 30 years, a second for $460,000 in 1925, to run for 25 years, and a third for $190,000 in 1929, to run for 11 years. Retirement of principal on these bonds began with the second year in one issue, with the third year in a second issue, with the fourth year in three issues, and with the sixth year in another issue.

Mr. Kelty presents a composite bond issue, which reflects the average condition of the six issues under consideration. This hypothetical bond issue, which would carry an interest rate of 5 per cent, would float for 27 years, and involve payment of interest amounting to $220,000. It would require a total tax of $470,000. The total interest on the bond issue would be 88 per cent of the total principal, or 47 per cent of the total tax. The total principal would only be 53 per cent of the total tax. It is apparent that for every dollar spent, the taxpayer would receive only 53 cents in actual value, and 47 cents would be used in interest payments.

A study of the problem was made by Mr. Kelty from another angle. Assuming that the cost of school construction is $5,000 per room, it is estimated that the principal above the bond issue would provide 50 rooms. The wasted interest would produce 44 additional rooms. Applying these facts to the six bond issues now outstanding, the principal sums of these issues will total $1,665,000. Interest payments to maturity will be approximately 88 per cent of the principal, or $1,465,200, and taxpayers will have paid a total of $3,130,200. This sum might have produced 626 classrooms, whereas it has actually only produced 333 rooms.

It is the belief of the school authorities that it is good business practice to finance school-building projects through a special tax, since it leaves the bonding capacity of the district unimpaired for emergencies due to earthquake, fire, or other cause. The special tax plan, it is argued, should be used only if the erection of buildings keeps pace with the enrollment of pupils. Such a tax is not suited, it has been found, to a sudden and extensive building program.

According to estimates of Supt. A. D. Graves, it is expected that a direct building tax of 30 cents, to cover a period of two years, will produce $220,000, which is considered adequate for present building needs.

BUILDING NEWS

California: Anaheim, election called to vote on bond issue of $325,000; *Los Angeles,* plans approved for two units Emerson Junior High School, Westwood Hills, allocation $305,000; *Palo Alto,* bond issue, $360,000, approved for junior high school and elementary school; *Los Angeles,* bids received for eight building projects, to include three reconstructed units and five new buildings, also contracts let for three buildings, total cost of $1,000,000; *Colusa,* corner stone laid for Pierce School, to cost $200,000; *Los Angeles,* four contracts awarded and nine bids received for projects in school-building program, to cost $653,570.

Illinois: Peoria, construction work started on Woodruff Senior High School, to cost $446,000; *Chicago,* bids received for seven new schools and additions to six schools, to cost $2,000,000.

Indiana: Pendleton, construction work started on junior-senior high school for Pendleton-Fall Creek township, to cost $131,130, PWA grant $58,192.

Iowa: Cresco, gymnasium-auditorium addition under construction for high school, also heating plant, to cost $130,000; *Spencer,* construction work started on addition to high school, to cost $209,000.

Massachusetts: Uxbridge, construction work started on high school, to cost $209.000.

Michigan: Charlotte, corner stone laid for high school, to cost $223,000.

Minnesota: Hibbing, board has requested federal grant to aid in the construction of high school, to cost $600,000; *Minneapolis,* construction work started on three high schools and an elementary school, to cost $1,130,000.

New Jersey: Dover, voters approved construction of addition to high school, to cost $285,000; *Chatham,* construction work started on addition to elementary school, to cost $280.000; *East Orange,* school board has asked for appropriation of $840,000 for construction of junior high school.

New York: Woodlawn, contract let for construction high school in Erie county, to cost $158,400, PWA grant $142,000.

North Carolina: Charlotte, county board in Mecklenburg county, called election to vote $593,000 for buildings and improvements to school buildings.

Oklahoma: Red Fork, construction work started on west side high school, to cost $300,000; *Oklahoma City,* board asked approval of appropriation of $361,644 for new buildings, additions to present structures, and repairs; *Oklahoma City,* voters approved bonds, $1,700,000 for school-building program, to include two high schools, additions to eleven schools, and repairs to old buildings; *Oklahoma City,* extra five-mill tax levy of $545,000 approved by the voters for school-building purposes. The additional tax levy intended for financing a school-building program, to include four high schools and junior high schools and six grade schools.

Pennsylvania: Pottstown, new building program, to include enlargement of Johns Junior High School, and to cost $1,000,000; *Lebanon,* election called to vote on bond issue of $700,000, for senior high school.

Tennessee: Kingsport, called election to vote $235,000 in bonds for construction and repair of schools; *Knoxville,* construction work started on school-building program, to cost $578,000.

Texas: Houston, federal funds of $955,365 received for financing school-building program, to include high schools and additions to elementary schools; *Dallas,* bids received for Highland Park High School, to cost $500,000. *Port Arthur,* steel stadium in course of construction, cost $65,000; also physical-education building for senior high school, to cost $120,000.

Wisconsin: Green Bay, petition presented to city council, calling for appropriation of $210,000 for Woelz School; *Manitowoc,* bids received for construction Washington Junior High School, to cost $238,000; *Milwaukee,* five-year program adopted, to include two high schools, three elementary schools, and a school for crippled children.

● MR. CHARLES W. MURPHY, clerk and business manager of the board of education at Ottawa, Kans., died suddenly in his office in the high-school building, on June 4. Mr. Murphy had been employed as clerk and business manager for the past fourteen years.

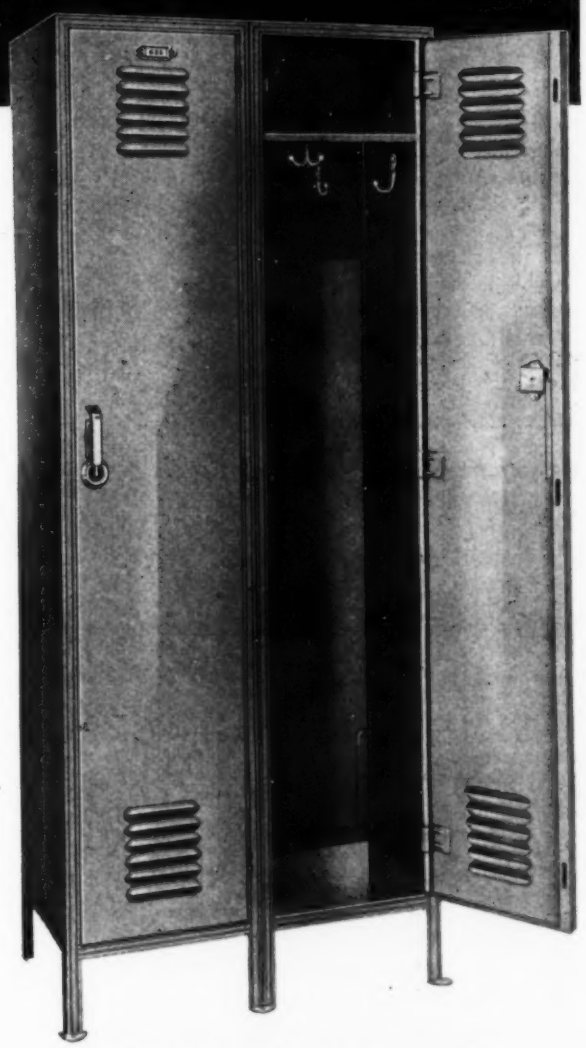
● MR. ROBERT H. RADTKE, a member of the board of education at Watertown, Wis., for a number of years, died at his home on June 3, after a long illness.

Beautiful corridor installation of Lyon Lockers in Spanish Acres High School, San Antonio, Texas.

Check School Plant Capacity by Annual Increase

ADD LOCKERS • • •

Plans for Fall will include an allowance for new pupils in many schools. To keep plant capacity up new lockers will be needed. The added facilities can be obtained by addition of new ones — or replacement with a type which saves space. To assure efficient, durable equipment, specify Lyon Lockers. Eleven standard types. Send coupon for catalog No. 233-D.



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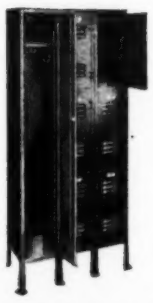
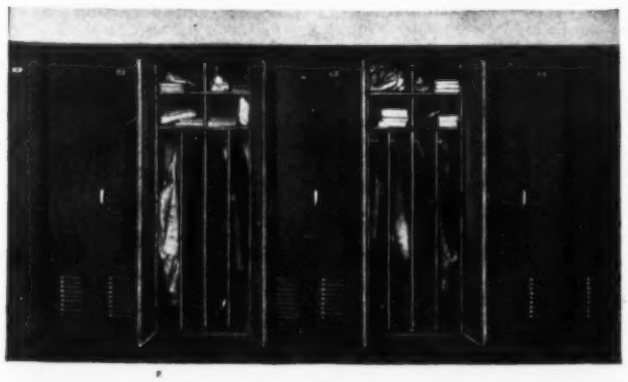
Lyon Box Lockers represent maximum use of limited space.



Lyon Gymnasium Lockers — Efficient clothes storage system with no attendant.

Lyon Two-Person Lockers — Another means of increasing capacity.

Auditorium seating capacity enlarged by new Lyon Steel Folding Chairs.



Lyon Double Door Locker — Wardrobe with group control locking device.

LYON SCHOOL EQUIPMENT *Service*

LYON METAL PRODUCTS, INCORPORATED, Aurora, Ill.

LYON METAL PRODUCTS, Incorporated, 1507 RIVER ST., AURORA, ILL.

We would like information, without committing ourselves further, on Lyon Lockers, as follows:

☐ Single Tier ☐ Box Locker ☐ Lyon Steel Chairs
☐ Two Person ☐ Gym Locker ☐ Lyon Locker-Wardrobe

Name_____ School_____

Address_____ City_____ State_____

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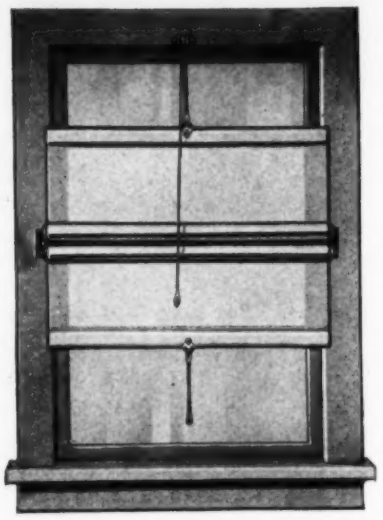

Shades of all types are available for your school in the Beckley-Cardy line. Particularly recommended are "Sightsaver" Double Roller Shades made of Supertex fabric which afford the approved "top" lighting and proper ventilation. All Beckley-Cardy shades are durably built and are available in various grades of shade cloth. Send for catalog No. 59BJ.

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Book News

PUBLICATIONS

A Mathematician Explains

By Mayme I. Logsdon. Cloth, 188 pages. Price, $2. University of Chicago Press, Chicago, Ill.

This is a new and delightful type of mathematics textbook which explains in eight brief chapters the nature and the history of the science of mathematics. Everything is presented in such a human way that the college freshman with limited mathematical inclinations will enjoy it.

Fun with Nick and Dick

By Arthur I. Gates, Franklin T. Baker, and Celeste C. Peardon. Cloth, 168 pages. The Macmillan Company, New York, N. Y.

One of a series of work-play books to run through the third grade. A satisfactory supplementary reader for use with any modern first reader. It has a vocabulary of 326 words and the illustrations, which are numerous, are in color.

Plumbing as an Occupation

By Charles A. and William L. Prosser. Paper, 8 pages. Published by the National Occupational Conference, New York, N. Y.

The pamphlet comprises an appraisal and abstract of available literature on plumbing for occupational purposes. It presents important facts about the occupation and points out the opportunities for employment, entrance requirements, working conditions, and earnings.

The Mastery Arithmetic

Book Three. By George R. Bodley, Charles S. Gibson, Ina M. Hayes, and Bruce M. Watson. Cloth, 492 pages. Price, 84 cents. D. C. Heath & Company, Boston, Mass.

The work for the seventh grade (Chapters 1 and 2) and the first half of the eighth (Chapters 3 and 4) follows widely accepted syllabi. The final semester's work allows for numerous choices on the part of the teacher who may prefer to present a series of practical applications of arithmetic to life and business situations, or lead her class into algebra through initial concepts of the use of letters and equations. The book makes use of written and oral tests and introduces the Monroe standardized tests.

Henry and the Garden

By James S. Tippett. Paper, 48 pages. Price, 20 cents. The World Book Co., Yonkers, N. Y.

Stories About Henry

By James S. Tippett. Paper, 96 pages. Price, 28 cents. World Book Co., Yonkers, N. Y.

An attractive set of little readers, for pre-primer and primer use, providing easy supplemental reading for the first grade. They offer simple, easy reading for beginners through which the child is led gradually to an increased vocabulary. The illustrations are in color, and the material is of distinctive merit and charm.

Metalwork Essentials

By F. E. Tustison and Ray F. Kranzusch. Cloth, 188 pages. Price, $1.50. The Bruce Publishing Company, Milwaukee, Wis.

Cold metalwork is rapidly assuming a place of importance in elementary and secondary industrial-arts courses and is to a certain extent replacing woodwork. The growth in metalwork is quite natural and corresponds to the increasing importance of metal in industry, in commerce, and in home and farm devices.

The present book presents, in a series of well-organized units, all of the essential processes of working metals and adds thereto a vast mass of basic information concerning tools, the properties of metals, their use in industry and the arts. The book suggests no projects, except in a few units where it is desirable to illustrate processes by application to practical situations.

The book is intended essentially for the advanced grades and for the high school and will serve excellently as an introduction both to industrial-arts and vocational courses.

Statistics for Students of Psychology and Education

By Herbert Sorenson. Cloth, 368 pages. Price, $3.50. The McGraw-Hill Book Co., New York, N. Y.

This book has a double purpose. It carries the student through all of the principles and applications of elementary statistics as these are used in social work, education and psychology. Second, it strongly emphasizes the intelligent interpretation and use of statistics as an aid in planning and evaluating educational programs and instructional results—not as a substitute for thinking.

Physical Education Achievement Scales for Boys in Secondary Schools

By F. W. Cozens, M. H. Trieb, and N. P. Neilson. Cloth, 160 pages. Price, $1.60. The A. S. Barnes Company, New York, N. Y.

This book provides a series of achievement scales to be used in testing high-school students. The purpose is to measure in comparable units the progress and improvement of each student in a variety of physical skills; to interest pupils in play activities through an evaluation of their efforts and to stimulate thereby all-round physical development; finally, to supplement and make definite the routine physical examinations of students.

The extended studies upon which the scales are based were made in the Los Angeles schools by applying the pentathlon and decathlon tests to some 56,000 boys. Studies of this kind, whatever criticism may be leveled against them, do take physical education out of the realm of time-wasting play and provide the instructor with a definite measuring stick whereby he can determine how efficient is his instruction, and how well every individual in his group is progressing.

A Handbook on Teachers Tenure

Paper, 30 pages. Price, 25 cents. Issued by the research division, National Educational Association, Washington, D. C.

A report of the committee on tenure, containing the results of a study of tenure laws, principles basic for tenure legislation, an analysis of laws relating to teacher tenure in five states.

High School English — Junior Books I and II

By Henry S. Canby, Olive I. Carter, and Helen L. Miller. Cloth, illustrated 350 and 428 pages. $1 each. The Macmillan Company, New York City.

These two books for the seventh and eighth grades complete *High School English*, by Canby, Opdycke, Gillum, and Carter. They place emphasis upon accurate observation and expression of what the students see, hear, feel and think. They supply material for practice and stress accuracy in the use of words. They teach the elements of poetry. They train the student to use the library, and supply lists of books for reading. The authors have supplied in one place at the end of each book a simple study of functional grammar. At least one or two of the selections quoted should have been omitted.

Improvement and Beautification of Rural Schools

Prepared by the Committee on School Plant Rehabilitation, under the direction of S. L. Smith, chairman. Paper, 30 pages. Issued by the southern office of the Julius Rosenwald Fund, at Nashville, Tenn.

This report of the Committee on School Plant Rehabilitation of the Julius Rosenwald Fund, presents the very gratifying results of the efforts to stimulate improvements and beautification of rural school plants and to set up a long-range program for continuous improvement and upkeep.

The report shows that, of 4,976 Negro school buildings erected by aid of the Rosenwald Fund in 879 counties of fifteen southern states, reports were received from 875 counties on 4,946 schools. A total of 4,812 buildings were in use in 1934–35, 76 had been destroyed by fire, storm or flood and rebuilt, and 58 consolidated with larger school centers. Of the 4,812 schools reported and in use, it was shown that 632 classrooms had been added to 323 schools, repairs were made on 3,217 buildings, at a cost of $1,501,857, and the school grounds were improved at 1,984 or 40 per cent of the schools. During the period from 1932 to 1934, a total of 400 new Negro schools, costing more than $1,500,000, were erected on modern plans, largely by local public funds.

Comparison of Costs Per Pupil in A.D.A. in Ohio City and Village School Districts for 1929–30 and 1934–35.

Compiled by T. C. Holy. Published by the bureau of educational research, Ohio State University, Columbus, Ohio.

A report showing the relative changes in costs per pupil A.D.A. in Ohio city and village districts during the periods of 1929–30 and 1934–35.

Webster's Collegiate Dictionary is the title of a new edition of the Merriam line of dictionaries. The book, which is in its fifth edition, has been completely revised and brought up to date, and is based on the revised *Webster's International Dictionary*. It contains 110,000 entries, new illustrations, more pages of reading matter, synonyms and antonyms, and a pronouncing dictionary of geography and biography. A number of other features of practical helpfulness are included, such as rules for punctuations, foreign words and phrases, signs and symbols, a vocabulary of Christian names.

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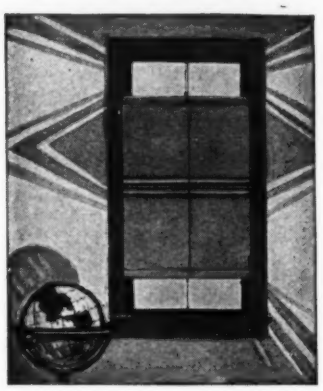

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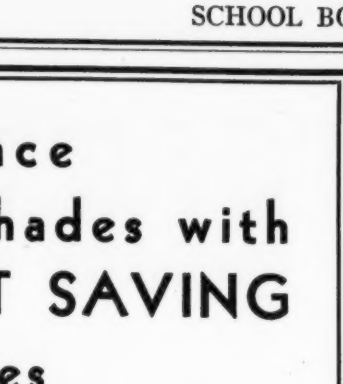

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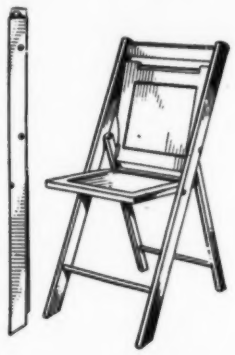

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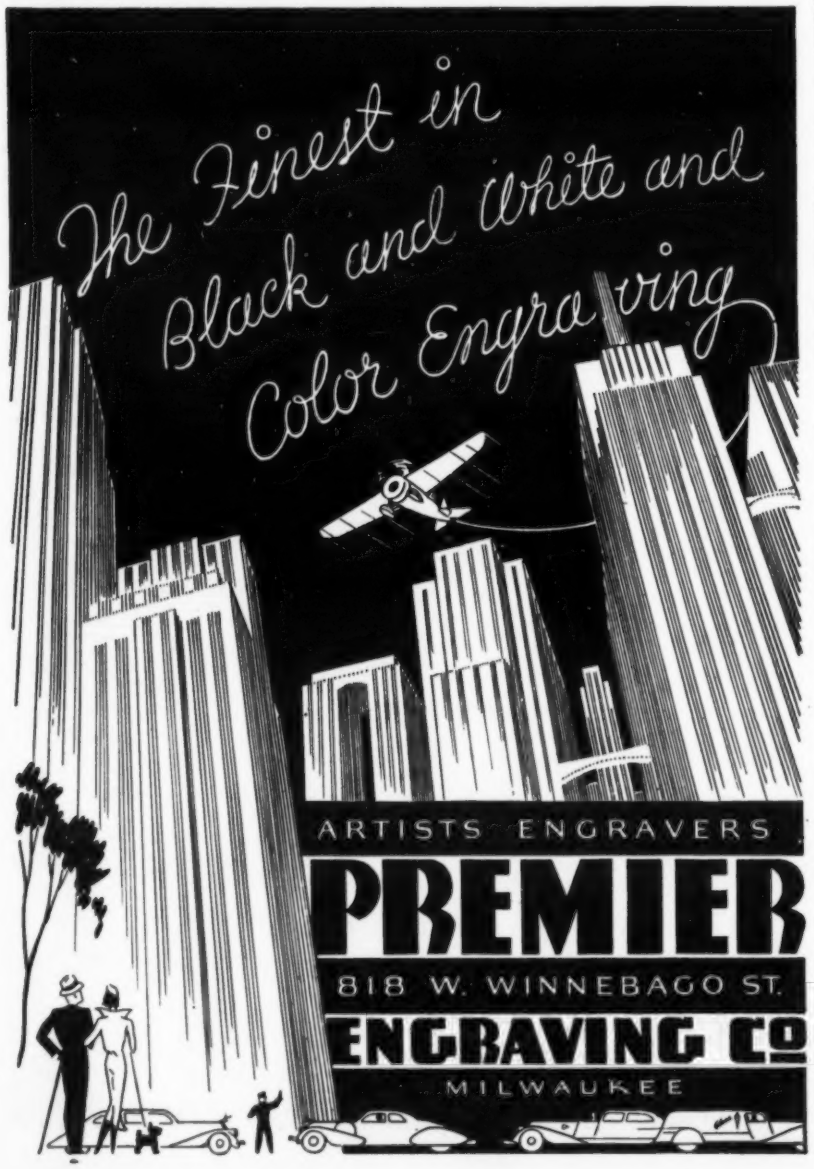

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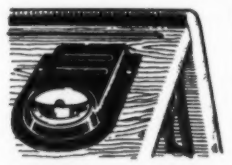

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THE TALKING PICTURE IN EDUCATION

(Concluded from Page 26)

talking picture offers new possibilities for the adult because of its almost limitless possibilities as a method of presenting concepts and because it can do so in a minimum of time. Men and women cannot be going to school a large proportion of their time. But they can give some of their lives to continuous study, provided much learning, concentrated in effectiveness, can be acquired in a minimum expenditure of time. Moreover, this adult curriculum must be flexible and readily adjusted to shifting conditions of life. The educational talking picture offers a new meaning to adult education. Its implications and possibilities almost transcend the imagination. The practical needs are a program for the production of pictures and methods of their utilization. The demand is for pioneers who are willing to venture into new fields. The challenge is clear.

CO-OPERATIVE BUYING FOR SCHOOLS

(Concluded from Page 28)

purchased later in the year. All successful bidders have agreed to this rule and have carried out the provisions when subsequent orders had to be sent, thus effecting another saving not possible under the non-co-operative plan.

School systems which have been forced in these days of depleted incomes to offer warrants that could not be cashed at once have gained the benefit of the cash prices.

While co-operative buying requires a great deal of time from each superintendent, there is really a saving of his time, because he does not need to have long conferences with many salesmen. Co-operative buying provides a saving for the school district in that the superintendent can devote his time to problems of administration and supervision. In other words, he does not have to resist sales talks, but he can profitably devote his time and energy to other local problems.

As no district has a regularly employed business manager, the superintendent of schools assumes the task of buying. Each school district participating gets the benefit of the combined judgment of all the superintendents. Analyses of materials and results of experimental trials are passed on to the co-operating schools so that all obtain a maximum return for every dollar expended.

Standardization of Supplies

One factor contributing to the success of the scheme from the beginning was that the superintendents of schools were willing to give and take on the question of standardization of supplies. There has been the greatest harmony on the annual purchase even though superintendents have changed.

Another factor that has had something to do with the continuing success of the plan is that the San Luis Valley is geographically an ideal unit. Although it contains an area as large as the State of Connecticut, and has an average altitude around 7,500 feet, neither the distance nor the weather, in the last eight years has prevented a meeting whenever one was necessary. The geographical advantage, however, would be of no avail if it were not for the unquestioned co-operation of the superintendents.

And still another factor which has noticeably contributed to the further success of co-operative purchasing is that we have never lacked sufficient firms to make the bidding really competitive. It may be worth noting that the orders have gone to different firms in successive years.

The one outstanding weakness is the failure to provide ample specifications to be followed by the bidders. In spite of this weakness, the superintendents of schools in the San Luis Valley are agreed that co-operative buying pays big dividends.

KEEPING THE SCHOOL DOOR SLAMLESS

(Concluded from Page 40)

1. Are they equipped with dogging devices at each end of the crossbars? If so, are they being used regularly and properly by the engineers? In the past few years dogging devices have been put on all the best panic devices. During the day when the doors are in use constantly, the crossbar can be pushed down and locked in position by the dogging device. The doors are operated by the door closers and the crossbars serve only as push-and-pull handles. The use of the dogging devices during the day greatly reduces the wear and strain on the panic bolts, thereby increasing their length of life and freedom from trouble.

2. Do the latch bolts engage properly in their respective keepers every time the doors are used?

3. Are all the operating parts thoroughly lubricated? In this connection it is well to remember that lock cylinders should never be oiled; it is better to use powdered graphite.

4. If there are any broken springs, they should be replaced with new springs made by the manufacturer of the device in use.

5. Are there any worn parts which should be replaced? There are certain parts which may retard the full travel of the latch bolts or vertical rods. This wear may occur at the axle where the lever arms of the crossbar come in contact with the center and end cases. If the center casings are worn, about the only thing that can be done is to replace them. If the axles are worn, they can be replaced. If the lever arm is worn, the enlarged hole can be reamed and rebushed.

6. In the case of mortise locks, can the latch bolt be fully retracted? If not, the difficulty may be caused by faulty installation.

When inspecting a building, it is well to keep in mind the fire regulations which are in force in the city or state. Does the equipment comply fully with these regulations? Have the school authorities made changes in the building which involve the proper use of panic devices?

In talking with many school superintendents, engineers, and manufacturers, the writer has found agreement that it is important to use good door closers for the proper operation of panic devices. On doors where panic devices are employed, it is particularly important to see that the door closers are functioning properly.

Trouble with door hinges is easily located upon

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inspection. Even new doors sometimes bind. This usually is caused by improper placement of the hinges. Old and worn hinges sag and are readily detected. No matter how splendid a school building may be, it is not "shipshape" without efficient, properly operating doors throughout. The vacation season is the best time to see that they all are in perfect condition.

A CENTURY OF PROGRESS IN SCHOOLROOM SEATING

(Concluded from Page 42)

almost exactly by two-sevenths of the height of the child, or by the length of the lower part of the leg, from the under side of the knee, when the leg is bent, to the bottom of the heel." (*c*) "The edge of the desk next the child should be about one seventh of the height of the child above the seat, or three sevenths of his height above the floor, plus about three fourths of an inch." (*d*) "The slant of the tops of the desk for reading should be at least forty degrees." (*e*) "The seat must be so situated with reference to the desk that if a perpendicular line be dropped from the edge of the desk, it will strike the seat about two inches back of its front edge."

Mann's statement of the principles of school seating in 1837 was very complete. Barnard gave some refinements of the principles and established more definite standards in 1854. The first adjustable desk was described in 1863. Folding seats were first mentioned in the literature in 1871. The use of various sizes of desks with rather commonly accepted standard dimensions had become a usual practice by 1875. One dimension previously overlooked, however, was the "difference." By 1880 seats and backs were curved, supposedly to fit the backs of the pupils. At this point, however, a controversy broke out. Young and others advocated a convex-shaped back. Other authorities required an S-shaped back. It is only within the past ten years that experiments have been conducted on a broad enough scale to definitely establish the correct type of school seat and desk for the traditional school.

SCIENTIFIC SCHEDULE BUILDING—II

(Concluded from Page 46)

Table VIII shows the closing combinations for J for two pairs of periods.

TABLE VIII. Closing Combinations and Limiting Numbers for J for Certain Periods

Periods 2 and 5	GHJ-1
	EGJ-1
	HJK-10
	EJK-0
	HJQ-0
	EJQ-0
Periods 1 and 6	BGJO-0
	BCBJ-1
	BGHJM-1
	BJKO-0
	BCJK-1
	BHJKM-1

Periods two and five proved to be closed because the combination HJK showed up frequently in the original tabulation of combinations (of which Table I is only a part). For periods one and six, however, none of the combinations with limiting numbers other than zero were to be found in the tabulation of combinations, and these latter two periods were therefore chosen for the J sections.

Courses of more than two sections can be placed by inspection or, especially in the case of three sections courses, by an extension of this method. When three or more periods are involved, the combinations to be tested are more complex and consequently more rare, that is, more of them drop out with zero as a limiting number, or involve so many different symbols that they are impossible in a six period schedule and need not be considered.

It is, of course, necessary in building a schedule to keep a check on the placements against the available rooms and teachers for each period, but this is easily done.

Space limitations allow only a sketchy description of an efficient technique for preparing pupils' programs and class or section lists by use of the symbols and numbers. Using the grouped registration blanks, the numbers (representing pupils' names as explained in Part I) may be written down one by one, each accompanied by a permutation of symbols (using some new symbol, such as a plus sign, for study section) which represents the pupil's program. For example, 254—B+DA+C would indicate that pupil No. 254 would have B the first period, study the second period, D the third period, A the fourth period, study the fifth period, and C the sixth period. A simultaneous listing of the various pupil numbers under headings representing the course sections will give the section lists in code. Clerks can then type out the pupils' programs and section lists by referring to the code sheets. Experience has shown that this can be done rapidly and easily.

In spite of its seeming complexity when described in print the procedure outlined in this article can be easily mastered and is a great improvement over the mosaic or trial-and-error method. It can be used regardless of the diversity of pupils' elections, has been used with very successful results in schools of 250 to 800 pupils, and is applicable to schools outside these limits. There is no danger of leaving out a class section, and changes in placements once made are possible. The efficiency and definiteness of the procedure may make it possible in some situations to build a schedule with fewer periods than can be done handily by other methods.

Schedulemaking is a fascinating problem. It is believed by the author that those who will study through their own situations by the analytical method outlined here, will gain a new appreciation of the multiplicity and complexity of the factors entering into the problem.

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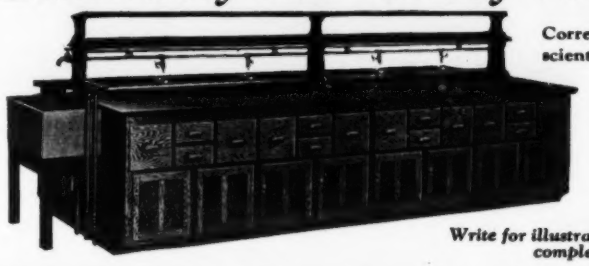

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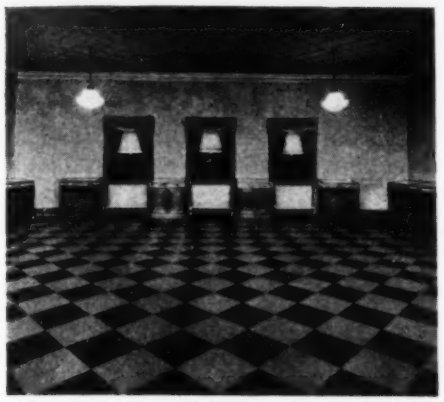

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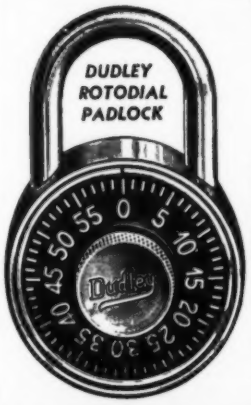

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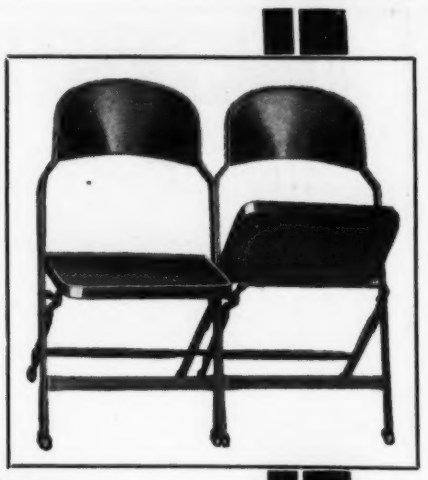

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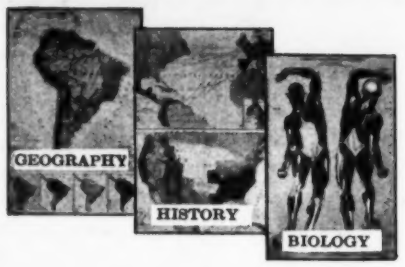

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NEW SALARY SCHEDULE AT BELOIT, WISCONSIN

The board of education of Beloit, Wis., has adopted a new single-salary schedule, which provides the same basic salary for teachers having the same experience, education, and efficiency, regardless of the department in which they teach.

Under the schedule, teachers in the first group, having two years' professional training and one year of experience, will begin at a salary of $1,000, and advance at the rate of $50 a year until a maximum of $1,400 is reached in the ninth year; teachers having the equivalent of one-fourth year's training over two years will begin at a salary of $1,025, and advance at the rate of $50 a year until a maximum of $1,425 is reached at the end of the ninth year; teachers having the equivalent of one-half year's training over two years will begin at a salary of $1,050, and advance at the rate of $50 a year until a maximum of $1,450 is reached at the end of the ninth year; teachers having the equivalent of three-fourths of a year's training over two years will begin at a salary of $1,075, and advance at the rate of $50 per year until the maximum of $1,475 is reached at the end of the ninth year.

Teachers in the second group, having three years' professional training and one year of experience will begin at a salary of $1,100, and advance at the rate of $50 a year until the maximum of $1,625 is reached at the end of the tenth year; teachers having additional training will advance to the maximum of $1,650, $1,675, and $1,700 at the end of the tenth year.

Teachers in the third group, holding bachelor's degrees, having three years of training, and one year's experience, will begin at a salary of $1,200, and will advance at the rate of $50 a year until the maximum of $1,900 is reached at the end of the eleventh year; teachers having additional training and experience will advance to the maximum of $1,925, $1,950, $1,975 at the end of the eleventh year.

Teachers in the fourth group, having five years' training, holding a master's degree and having one year's experience, will begin at a salary of $1,300, and will advance at the rate of $50 a year until the maximum of $2,025 is reached at the end of the eleventh year.

Under the rules governing the salary schedule, a teacher, in order to obtain the regular annual increment continuously, must within a four-year period attend a summer school and earn at least four semester hours of approved credit. Teachers who have not attended summer school during the last four years are given two years in which to attend a summer course and earn from four to six credits. Exceptionally successful teachers may receive double annual increments upon the recommendation of the principal and superintendent, but no extra increment may be continued longer than one year, except upon recommendation of the superintendent. Exceptionally successful teachers who have received the maximum salary in the schedule may be voted supermaximum salaries upon the recommendation of the superintendent. Such teachers are expected to maintain the efficiency which the maximum salary indicates.

Under the rules, $200 will be added to the basic salary for single men teachers, and $400 to the basic salary of married men. Women teachers supporting dependents may be placed in the same group with men teachers upon recommendation of the superintendent.

TEACHERS' SALARY NOTES

♦ Manistee, Mich. Increases in salary amounting to 2½ per cent have been given to teachers in the schools.

♦ Chelsea, Mass. The school board has approved a suggestion of the salary committee, requiring that school employees contribute to the city 10 per cent of their gross salaries from May 1, 1936, to January 1, 1937.

♦ Creston, Iowa. All teachers have been reappointed, with salary increases of 6 per cent.

♦ Moline, Ill. The board of education has voted to restore salaries of teachers, executives, and principals to the 1931 level, eliminating the last of a series of salary cuts. The final salary cut, which will be restored next year, amounts to 10 per cent of salaries after an exemption of $600.

♦ Evansville, Ind. The school board has given salary increases of 10 per cent to all teachers for the 1936–37 school term. The increases will aggregate $75,000 during the next year.

♦ Gloucester, Mass. The school board has approved a suggestion of the teachers' association, calling for the payment of the annual salary in 26 equal installments, distributed through the calendar year. The arrangement eliminates the 40-week basis.

♦ Auburn, Me. The school board has voted to give flat increases of $25 to all teachers receiving less than $1.000. The increases from September to December total $892, or $340 less than available for increases. It was voted to continue the 15 per cent cut in salary for another year.

♦ Naugatuck, Conn. All teachers have been reappointed with salary restorations equivalent to 5 per cent.

♦ Davenport, Iowa. The board of education has adopted a recommendation of the educational committee, providing for the restoration of the pay of teachers to the level of 1931–32. The recommendation fixes the school year at nine and one-half months, so that teachers will next year receive half a month's less salary than they received in 1931–32.

♦ Louisville, Ky. The payroll for the teaching staff will be increased $93,000 with the opening of schools next September, according to a recent statement of the board of education. The increase is due to a new salary schedule, which increases the teachers' salaries on the basis of years of experience, responsibilities, and amount of training. New rules governing the employment of teachers were adopted to conform to the state law.

♦ Toledo, Ohio. The board of education has adopted a single-salary schedule for the teaching staff. The new schedule, which goes into effect September 1, affects 418 of the 1,370 teachers, and adds $37,235 to the payroll for the first year. Under the schedule, no teacher will be reduced in salary, or eliminated from automatic salary increases. Service credits will be given teachers with more than ten years' training.

Under the schedule teachers with two years' training will receive $1,250 minimum and $2,240 maximum; those with three years' training, $1,305 minimum and $2,405 maximum; those with bachelor degrees, $1,360 minimum and $2,790 maximum; those with master's degrees, $1,470 minimum and $3,010 maximum; those with added degrees or equivalent, $1,525 minimum and $3,220 maximum

♦ La Porte, Ind. The board of education has restored 10 per cent of the salary reduction to teachers for the next school year.

♦ Des Moines, Iowa. The school board has adopted a new basic salary schedule for teachers, which provides for average increases of $149 per year, with an average of 8.8 per cent for classroom teachers, and 12.3 per cent for elementary principals. The increases will benefit more than 1,000 teachers and will result in an expenditure of $160,412.

♦ Anthony, Kans. The school board has approved salary increases of 10 per cent for all members of the teaching staff.

♦ Grand Rapids, Mich. The board of education has adopted a budget of $2.486.000 for the school year 1936–37, which calls for a tax levy of 7.0434 mills.

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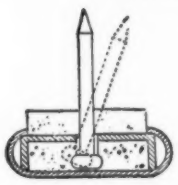

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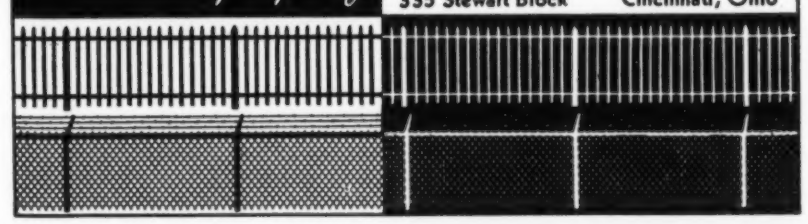

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THE BOARD OF EDUCATION AND THE INTERNAL ACCOUNTS OF THE SCHOOL

(Concluded from Page 16)

records, has thrown away or lost most of his vouchers, and, the persons, to whom was assigned the actual work of keeping the records, have left the system. Therefore, he must throw himself on the mercy of his accusers. Their decision must be based on the smattering of records which is presented and the integrity of the individual in the past. But, could it not be said that the fault is as much with the board of education as it is with the principal? The board of education should have seen its responsibility and caused periodic reports to be rendered to it, and should have caused periodic audits to be made of the basic accounting records. Most individuals are so constituted that they tend to operate carelessly unless the person in control shows some semblance of a check-up. This is not because of any dishonest intent of the persons concerned, but it is probably due to the relative unimportance they attribute to certain phases of their duties. The same disastrous results may come from the handling of book money which has been collected from the children by the principal. He is unable to render a full accounting and thus he is immediately under suspicion. This practice often involves the teachers who collect money for the principal and the board of education which makes up deficits at times because of the inability of children to pay for their own books. Numerous other instances, similar to those explained above, might be cited in regard to other accounts but these serve to illustrate the importance of internal accounting.

The public schools of New York State seem to be more conscious each year of the importance and the need of businesslike methods in the handling of internal accounts. In some instances all extracurricular accounts are thrown together and supervised by some member of the staff, whereas some schools find it more advantageous to consider internal accounts the same as external accounts and handle them through the regular officials of the district. The whole thing is probably not so much a matter as to how they are controlled as it is that they are controlled some way or other. As Cleveland said, "It is a condition and not a theory that confronts us," and so it is with internal accounting; these conditions have arisen in our midst and they must be considered. We cannot shun the importance of internal accounting.

LOCAL VERSUS STATE OR NATIONAL CONTROL OF SCHOOL-PLANT PLANNING

(Continued from Page 39)

ing about $12,500, and a gymnasium costing $15,000. If such a building were erected, the district could raise by local taxes only $1,400 per year for all school purposes. In this case there are two other high schools within a radius of six miles to which the thirty high-school pupils may have been transported over hard-surfaced roads. This is only one of the many examples that might be cited to show the need of counsel from an outside agency in school-plant planning.

There are a number of advantages in state control of school-plant planning. Better coordination of the whole educational program may be obtained when each unit is seen in its relationship to other units and districts. State control makes it possible to fit each new unit into a planned program. Local politics and local pull may in many cases be eliminated. Standards of planning and construction may be set up and enforced. Records obtainable in states that provide supervision of school-plant planning indicate that such control aids in securing more efficient buildings and more economical construction. In one state the records show that, after allowing for changes in construction costs, the new buildings erected after state supervision was provided cost six-tenths of a cent more per cubic foot than the buildings erected during a ten-year period prior to the development of state supervision. At the same time the cost per pupil enrolled was decreased about 22 per cent in the buildings erected under state supervision. Although the costs per pupil enrolled were less, the buildings erected under state supervision were generally admitted to be more sanitary, better lighted, heated, and ventilated, and in every way more adequate to house the school program in each district.

Providing a New Type of Supervision

The objections to state or national control are usually based on the fact that there is often much delay in remote control; there is fear of overcentralization and fear of the loss of local control. Each of these objections may have some basis. So long as the local district must provide all, or nearly all, of the funds needed for a new building, it may be advisable to retain in the local district some control of school-plant planning.

The weak features found in complete local control, the objections made to certain phases of complete state or national control of school-

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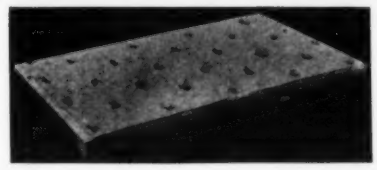
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plant planning, and the lack of state or national funds available at this time for school-plant construction make desirable a new type of supervision. This can probably best be attained by a combined state, national, and local control. A combination of state and local control has been developed in a number of the states. Under this proposed plan the Federal Government would, through the Office of Education exercise some control. This office would direct research, aid the state officials in an advisory capacity, assist in surveys on request, and give approval of any allotment of federal funds that may be provided for schoolhouse construction.

The state, through the state department of education, should participate in the supervision of school-plant planning. This department may set up standards of schoolhouse planning, may assist the local district in making surveys, and may set up educational specifications for each new building to be erected. This department may also serve as an information bureau for architects and local district officials. Someone in the state department of education, specifically trained for this type of work, should check and approve all plans and specifications, aid the local board in letting contracts, give some aid in supervising construction, make final approval when the building is completed, and approve the allotment of state funds. With this type of control or supervision, the local district would initiate the program, determine the amount of local funds to be provided, let all contracts and direct all operations under the supervision of the state. Under this type of control, the weak features of complete local control, and the objections to too much centralized control may be avoided. The completed building, although erected under state supervision, would belong to the local district.

♦ Pontiac, Mich. The board of education has received a report from the business department, showing that there will be a credit balance of approximately $100,000 at the close of the fiscal year ending on June 30, 1936. The improved financial situation is due to a heavy and unusual collection of delinquent taxes during the year.

After the Meeting

CHATS DURING RECESS

A school committee in Massachusetts recently voted to exclude the press from its meetings. One of the newspaper editors in a spirit of resentment said: "Strangely enough, the originator of the no-publicity idea is a clergyman — who probably asks and gets yards of free publicity for his church. And then school officials and professors wonder why somebody gets up a law to make them take oaths of allegiance and salute the flag!"

Wins Election — Loses Job

At Barnstable, Mass., a discharged school teacher, Miss Mabel Weekes, became a candidate last March for membership on the school committee, and was elected. Her election was regarded as a vindication and her reinstatement as teacher deemed assured. A Supreme Court decision now says that she cannot accept a salaried position as teacher, but may continue as an unsalaried member of the school committee.

Weighty Answer

Teacher: Can you give me a familiar example of the human body as it has adapted itself to changed conditions?

Pupil: Yep, my uncle gained 50 pounds in a year and his skin never even cracked.

At Least One Thing

Student: "What is the date please?"

Professor: "Never mind the date. The examination is more important."

Student: "Well, sir, I wanted to have something right on my paper."

Knew His Class

Professor (in the middle of a joke): "Have I ever told the class this one before?"

Class (in a chorus): "Yes."

Professor (proceeding): "Good! You will probably understand it this time."

Warning — Pun Ahead

Professor (to unruly freshman): "Tell me, sir, what has become of your ethics?"

Freshman: "Oh, sir, I traded it in long ago for a Hudson." — *Annapolis Log.*

All There

Indiana educators in convention assembled have adopted a resolution declaring that a hen may either "sit" or "set." That matter was settled just as the sitting sun sat. — Rochester Times Union.

Nice Boy

A little boy sat disconsolately on the curb and sobbed as though his heart would break. The kind old lady stopped and said, very sweetly:

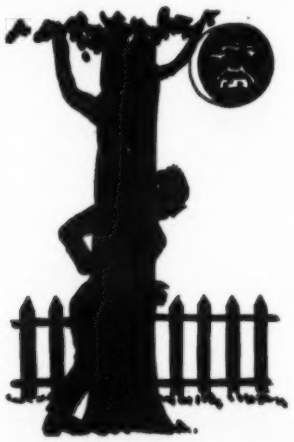
"Is a itta boy cwyin'? Tum, tella nice lady wassa matter."

"If you are inquiring as to the cause of my lachrymose condition," he answered, looking up at her very pityingly, "it is because I have thus far been unable to find any suitably intelligent playmate whose eugenic constitutions are in harmony with my pathological tendencies, and whose hereditary affiliations meet with the approval of my parental relations since we moved to this darn place from Boston."

Fair

"Your son is a college graduate, isn't he?" asked the stranger.

"Yes," confessed the farmer. "But in justice to the college I'll have to admit that he didn't have no sense beforehand."



In Danger?

Albert: "Ma, kin I go out in the street? Pa says there is going to be an eclipse of the sun."

Ma: "Yes, but don't get too close."

Buyers' News

TRADE NEWS

Ditto Instruction Booklet. Ditto, Inc., Chicago, Ill., has announced the publication of an instruction booklet entitled, "How to Construct and Use Objective Tests," which offers helpful information concerning the various forms of objective test questions, make-up of the tests, and administering, scoring, and interpreting of them. The booklet has been compiled in response to a demand on the part of educators for this form of helpful service. A free copy of the booklet may be obtained by writing to the Ditto Company at Harrison and Oakley Sts., Chicago, Ill.

All-Steel Opens Office in Detroit. The All-Steel-Equip Company, of Aurora, Ill., manufacturers of steel equipment, have opened a new district office in Detroit, Mich., with Mr. H. L. Breitenstein as district manager.

Issue New B. and L. Catalog. The Bausch & Lomb Optical Company, Rochester, N. Y., has just issued Catalog D-10, listing and describing lenses, prisms, and mirrors. The catalog includes plano convex lenses, double concave lenses, flat cylinder lenses, enlarging condensers, projection condensers, achromatic lenses, crown glass prisms, equilateral prisms, special prisms, right-angle prisms, halle and Glan-Thompson prisms, parabolic mirrors, spherical mirrors, black glass mirrors, convex mirrors, quartz optical parts, miscellaneous optical parts, and optical sets.

Mr. Blaney Appointed. Mr. W. H. Blaney has been appointed school manager of the Typewriter Division of the Underwood-Elliott-Fisher Company, with headquarters at 1 Park Avenue, New York, N. Y.

Mr. Blaney has been connected with the typewriter industry since 1915 and has devoted considerable attention to the problems involved in the teaching of typewriting in elementary and secondary schools. He will succeed Mr. W. D. M. Simmons, who has had charge of the school sales for the firm for a number of years past.

Beckley-Cardy Issues Equipment Catalog. The Beckley-Cardy Company, Chicago, Ill., has issued its new Catalog 59, which contains 64 pages devoted to its complete line of school supplies and equipment. The catalog lists school furniture, blackboards, window shades, erasers, duplicators, maps and globes, and a general line of school supplies. It contains a serviceable index which permits the user to quickly and easily locate any item listed.

A copy of the catalog will be sent upon request.

Blackboards for a Variety of Classroom Purposes. The Natural Slate Blackboard Company, Pen Argyl, Pa., has issued an attractive booklet, showing the advantages of blackboard for a variety of purposes in schools and institutions. The booklet includes plans of typical classrooms, together with photographs and specifications useful in the planning and installation of blackboards. Among the particular uses of blackboard, as described in the booklet, are for wardrobes, lockers, bulletin boards, tack strips, domestic-science and home-economics work, vocational-training and industrial-arts shops, arts and sciences, and places of assembly. The last part of the booklet is devoted to a detailed study of the origin, analysis, and production of slate, its characteristics, preparation, and finishing.

The booklet, which is written by D. Knickerbacher Boyd, architectural adviser, may be obtained by writing to the Natural Slate Blackboard Company, Pen Argyl, Pa.

TRADE PRODUCTS

Announce New TrestleWood Desk. Gunn Furniture Company, of Grand Rapids, Mich., has announced its TrestleWood desk, in which the beauty of real wood surfaces is combined successfully with the rigidity, lightness, and other advantages of steel frame. Complete standardization and interchangeability of parts are provided in the TrestleWood desk, and spare parts are available at less than the cost of repair of refinishing.

THE NEW GUNN TRESTLEWOOD DESK

In the TrestleWood desk, the frame is composed of four-spot, welded angle-steel assemblies; the back and sides are fitted accurately by means of grooves into the top; metal corner posts grained, in imitation of the wood employed, snap over the panels, and hold them firmly in position; the bottom assembly is also grooved to receive the plywood panels and is then fastened to the framework, resulting in a light but perfectly rigid case.

The firm has in preparation a model in Italian Renaissance, employing walnut, with trim of walnut burl, or mahogany with crotch trim. Other models of more commercial design will be available in a variety of woods, including quartered oak. A full line, including three- and four-drawer desks, and typewriter desks in various sizes, is contemplated by the firm. Among the features are a new all-steel lock, which simultaneously locks or releases every drawer, by turning the key in the central drawer. Complete information is available upon request.

E. G. BENTLEY DIES

Mr. E. G. Bentley, advertising director of the American Seating Company, and for many years treasurer of the National School Supplies and Equipment Association, died at Grand Rapids, Michigan, on Tuesday, June 16, following an operation for appendicitis. The body was brought to Wilmette, Illinois, for interment.

Mr. Bentley spent practically his entire business life in the sale and advertising of school furniture. Connected for many years with the E. H. Stafford Company, he came to the American Seating Company in an executive capacity about fifteen years ago. When the manufacturing activities of the company were concentrated in Grand Rapids, he took up residence in Michigan.

Mr. Bentley's enthusiasm for posture seating and his constructive marketing of the idea stands as just one of his many substantial contributions to the advance of school furniture in America. School executives and the industry recognized his progressive spirit and regarded him as an exceptional man in point of character and ability, and one who fostered the highest ideals in the calling he had chosen for himself.

MR. BELING ENTERS CONTRACTING, BUSINESS

Mr. Earl H. Beling, formerly manager of the unit ventilator division of the Herman Nelson Corporation at Moline, Ill., has entered the contracting business in heating, ventilating, and air conditioning, and will specialize in schoolwork. Mr. Beling will be head of the Beling Engineering Company and will maintain offices at 2428 13th St., Moline, Ill.

SCHOOL-BUILDING CONSTRUCTION

During the month of May, in eleven states west of the Rockies, contracts were let for the erection of six new school buildings, to cost $341,777. Eighteen further buildings, involving an expected outlay of $781,878, were reported in preliminary stages.

In 37 states east of the Rockies, Dodge reports the letting of contracts for 309 educational buildings to include 3,858,900 square feet of area and to cost $20,726,000. Of this number, 262 are college and school buildings and will cost $19,598,600.

SCHOOL-BOND SALES

During the month of May, the total amount of school bonds sold was $7,921,900. Short-term financing, including refunding bonds, and warrants, amounted to $2,743,500. The total for the month was, accordingly, $10,665,400.

The largest amounts of permanent bonds were issued in New York State, $1,991,250; in Oklahoma, $1,817,800; and in Pennsylvania, $819,000.

SOUTH BEND'S SIGNIFICANT FACTS

The annual report of the South Bend, Indiana, school board announces that the school system of that city is upon a sound financial basis; that it has never missed a bond or interest payment; that it has reduced its operating expenses by $800,000; has placed its school cafeterias on a self-supporting basis, and has carried on a steady building and playground program.

SUMMER PROGRAM MAINTAINED AT ANTHONY, KANSAS

The board of education at Anthony, Kans., has approved the extension of its summer program this year, to include manual-training work. Music work was started last year, which makes available to the youth of the community music, manual training, and playground work.

COMING CONVENTIONS

July 3. National Education Association, at Portland, Oregon. Willard E. Givens, Washington, D. C., secretary.

July 6–9. American Home Economics Association, at Seattle, Wash. Ellen LeNoir, Baton Rouge, La., secretary.

July 7–8. Massachusetts Public-School Custodians' Association, at New Bedford, Mass. Terrence F. Casey, Lowell, secretary.

July 13–15. National Federation of College Catholic Clubs, at Atlantic City, N. J. Kay Kearney, Albany, N. Y., secretary.

August 2–4. Franciscan Educational Conference, at Santa Barbara, Calif. Very Rev. Claude Vogel, O.M.C., Washington, D. C., secretary.

August 17–22. American Federation of Teachers, at Philadelphia, Pa. George Davis, Chicago, Ill., secretary.

September 27–29. New York State Council of Superintendents, at Saranac Inn. E. L. Ackley, Johnstown, secretary.

MINNEAPOLIS ADOPTS BASIC MONTHLY SALARY SCHEDULE FOR JANITORS

The board of education has approved a recommendation of the janitors' salary committee, providing for a new basic monthly salary schedule for janitors and engineers in the public schools. The schedule provides for five classifications of employees of the janitorial department, comprising auxiliary janitor-engineer in charge, with chief or first-class license; janitor-engineer in charge of high or elementary school, with first- or second-class license; assistant janitor-engineer in charge of high school, with first or second-class license; assistant janitor-engineer in charge of elementary school, with first- or second-class license; janitor-engineer or cleaner; and janitresses.

Under the schedule, auxiliary janitor-engineers, with chief license, will start at $185, and advance annually at the rate of $5 a month up to a maximum of $210; janitor-engineers, with first-class license, will start at $180, and advance annually at the rate of $5 a month up to a maximum of $205.

Janitor-engineers in charge of high or elementary schools, with chief license, will start at $145, and advance at the rate of $5 a month up to a maximum of $170; those with first-class license will start at $140, and advance at the rate of $5 a month up to a maximum of $165; those with second-class license will start at $135, and advance at the rate of $5 a month up to a maximum of $160.

Assistant janitor-engineers in charge of high schools, with chief license, will start at $145, and advance at the rate of $5 a month up to a maximum of $170; those with first-class license will start at $140, and advance at the rate of $5 up to a maximum of $165; those with second-class license will start at $135, and advance at the rate of $5 up to a maximum of $160.

Assistant janitor-engineers in charge of elementary schools, with chief license, will start at $125, and advance at the rate of $5 a month up to a maximum of $150; those with first-class license will start at $120, and advance at the rate of $5 a month up to a maximum of $145; those with second-class license will start at $115, and advance at the rate of $5 a month up to a maximum of $140.

Janitor-engineers or cleaners will start at $105, and advance at the rate of $5 a month up to a maximum of $130. Janitresses will start at $80, and advance at the rate of $5 a month up to a maximum of $105.

Employees in the positions of janitor-engineer in charge of a permanent school, or assistant janitor-engineer in charge of a high school, and who has been employed continuously in the janitorial service for three years or more on January 1, 1936, will receive beginning with April, 1936, the first salary amount in the schedule, which exceeds the basic salary rate paid in December, 1935. The annual increment will become effective on January first of each succeeding year until the maximum salary is reached.

OPPOSE TAX LIMITATION

Tax limitation by constitutional amendment is opposed by the New York State School Boards' Association. The Association, in a recent bulletin containing articles against the proposal, attempted to prove that the proposal, wherever tried, has not worked out successfully. Dr. Howard Pillsbury, superintendent of schools at Schenectady, argued that the proposed tax limit, regardless of the size of the budget, is unscientific, in that it will keep local communities from expanding beyond that limit if they see fit to do so, and if they can afford it. He cited the experiences of eight states where the plan has been tried. Senator Mastick, in arguments much to the same effect, declared that a tax-limit provision in the constitution would impose a financial strait-jacket on local school districts. He pointed out that if normal services are to be kept intact, it would be necessary to locate a large indeterminate amount of new revenue to supply the deficiency.

INSURANCE FOR SCHOOL BUSSES

The board of public instruction of Broward county, Florida, has a complete system of school transportation and maintains a fleet of ten busses for the transportation of school children. In its experience, the board has found it cheaper to own and operate its own transportation system. As a means of safety, the board keeps a close check upon all busses and drivers, and endeavors in every possible way to protect the children.

Property-damage insurance is carried on each of the ten busses to an amount not exceeding $5,000. The board has also taken out liability insurance amounting to $5,000 in case of injury to one child, and not more than $50,000 in case of accidents involving several children. For this protection the board pays $490 a year in premiums.

COMPARATIVE STUDY OF SCHOOL-BUILDING PROJECTS

Contracts let for the first five months of the school year show the progress in new school construction and forecast the total volume of new construction for 1936.

Contracts awarded so far this year are largely the result of the final steps in the PWA school-building program. At this time PWA financing of school projects is responsible for at least 75 per cent of new school construction in the country.

The following figures offer comparative data relating to new school-building projects:

	1936		
Month	*No. of Projects*	*Square Feet*	*Valuation*
Jan.	570	7,617,200	$ 39,480,100
Feb.	375	4.099.500	21,122,500
March	340	3,980,900	19,196,000
April	314	4,700,100	23,158,200
May	309	3,858,900	20,726,000
	1,908	24,256,600	$123.682 800
	1935		
Jan.	192	704.800	$ 3.719,800
Feb.	154	1,071,100	5,768,300
March	199	1,873,600	10,409,100
April	191	1,470,000	8,299,100
May	234	1,452,900	8,990,500
	970	6,572,400	$ 37,186,800

All the factors which underlie and continually influence new school building are actively present, namely, obsolescence, destruction by fire, increase in school population, especially in high-school enrollment, shifts in population, changes in school organization and educational program, consolidation of rural school districts, shortage of adequate school facilities. On this basis alone the need and demand for new school construction will continue at a high level for some years to come. A further indication of the new schoolhousing requirements at this time is contained in a recent report of the PWA Administrator showing that applications for Federal funds are still pending for nearly seven thousand community projects, the larger percentage of which are school projects. Assuming that school projects still represent the same percentage of total projects as on previous applications, the total volume of needed new schoolhousing can be estimated at approximately $500,000,000 for the country.

HYGIENE AND SANITATION

♦ The Indiana State Board of Education has approved a new rule, requiring pupils to take a complete course in health education, beginning with September, 1936. The program provides for the creation of a state health education division, with Dr. T. B. Rice as director.

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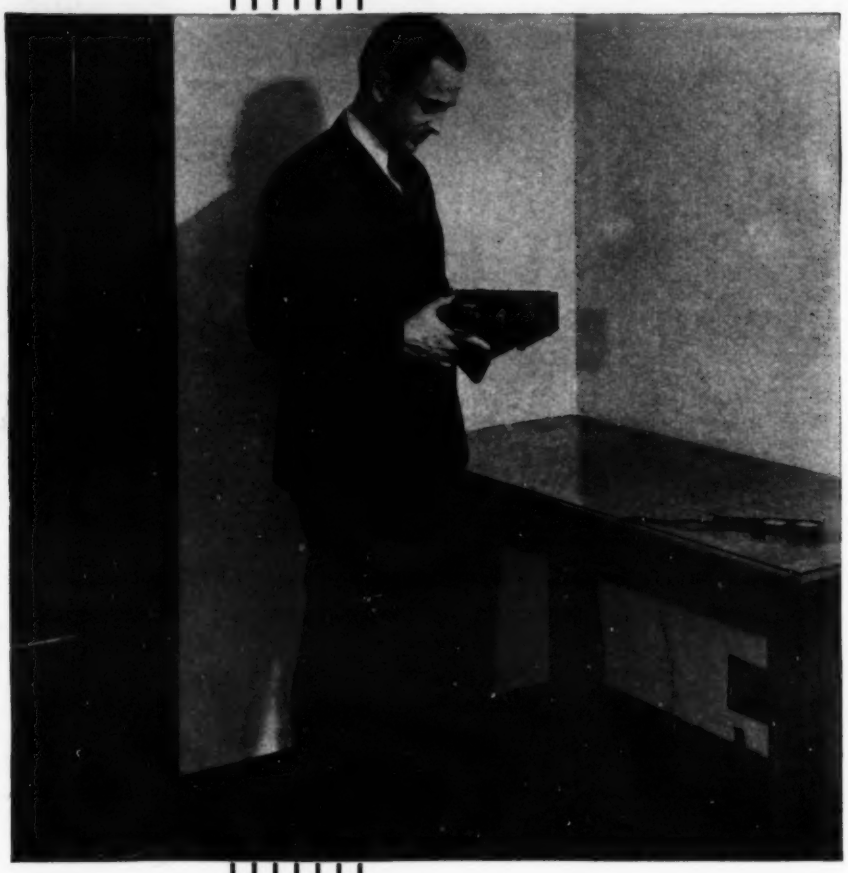

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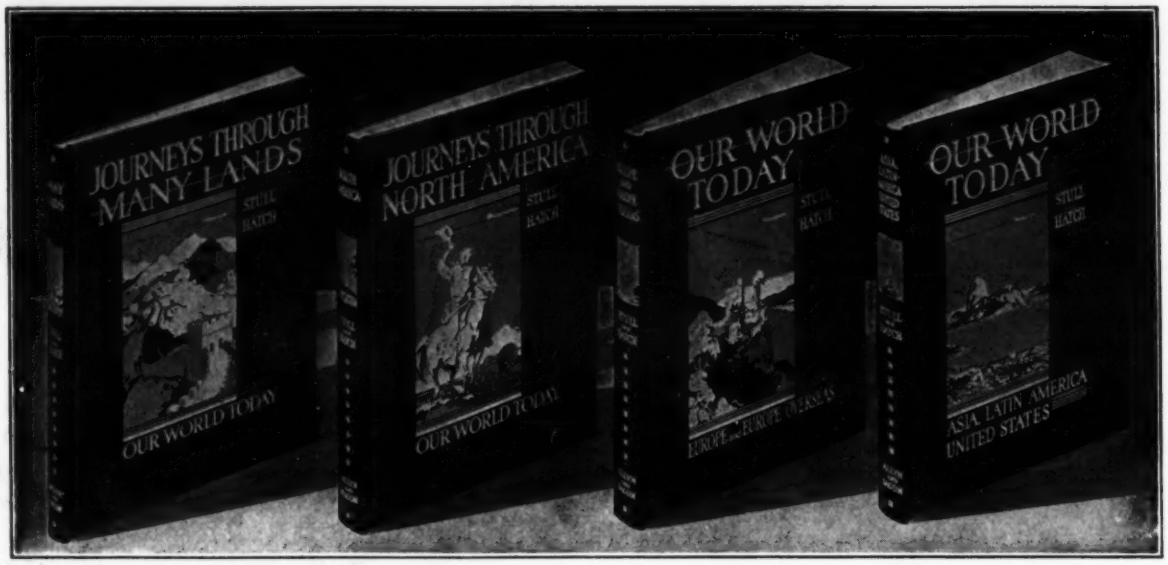
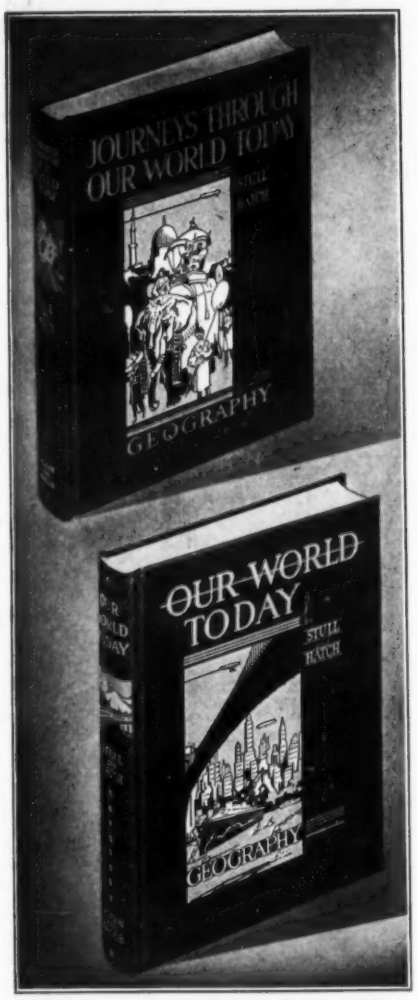
CONTROL SYSTEMS

BROWN INSTRUMENTS FOR INDICATING, RECORDING AND CONTROLLING



THE NEW GEOGRAPHY



How shall we plan, that all be fresh and new,
Fraught with deep meaning, yet attractive too?
—Goethe

Not long ago two well-known teachers realized that geography should be the most interesting subject in the schools instead of the dullest. Also that it has in itself the best preparation for citizenship of America and of the world.

The old geographies had been teaching the course to young pupils as a mechanical science. Our two teachers decided that the course should be a live social study.

Our teachers built their course bit by bit in the laboratory of the classroom. As the course developed, it became increasingly clear that there was no place in it for any of the time-worn features of the old, traditional geography. This must be a new course in substance as well as in name; it must be the New Geography.

The two teachers were fitted by training, by insight, and by experience to undertake this task. They knew the language of children; they had had experience as writers; they had access to the best pictures and maps; every skill and resource of printer and publisher were at their command.

The result is the New Geography Series, which enables pupils to understand what is going on in the world about them, what they read in the newspapers, what they hear about any part of the world on the radio.

The success of the enterprise is best gauged by the success of the books in the classroom. Pupils and teachers alike welcome the New Geography as a fresh, attractive subject which prepares for better citizenship.

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